FOREIGN AID, ECONOMIC DEVELOPMENT AND THE INDEBTEDNESS PROBLEM, WITH SPECIAL REFERENCE TO THE SUDAN

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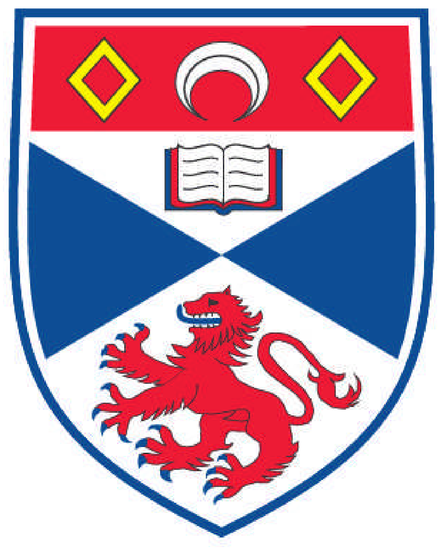
A Thesis Submitted for the Degree of PhD
at the
University of St. Andrews



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ABSTRACT

Foreign Aid, Economic Development and the Indebtedness Problem, with Special Reference to the Sudan

In the task of promoting both economic growth and development of the developing countries, both theory and development experience suggest that international co-operation in a broad sense has a vital role to play. For most developing countries, foreign trade is, and is likely to remain, the most important ingredient of such co-operation, although in the absence of a so-called new international economic order, its benefits may be smaller than most developing countries think to be equitable. But despite the overwhelming importance of trade, resource transfers from the more advanced and rich countries have a significant and in many cases, a decisive role as well to play in augmenting economic development. Resource transfers include foreign investment, financial aid and technical assistance.

The present study principally examines the role of foreign aid - including both financial and technical assistance - in economic development with particular reference to the Sudan. This focus on aid is not intended to under-rate the significance of other forms of co-operation between advanced and developing countries in promoting the latter's development. This study falls into three main parts which together cover most of the principal issues related to foreign aid, and examine the situation in the Sudan.

Part I is a critical review of the theoretical literature on aid and of the controversies that have arisen in the light of the different empirical investigations which have been attempted to establish its impact upon recipient economies. It also examines the rationale behind the provision of aid and the requirements which are to be satisfied if it is to be used effectively.

Part II is an attempt to apply the conceptual framework of the previous part to an elucidation of the role of aid in the Sudan's economic development. It begins with a brief description of the structure of the Sudanese economy and a survey of the trends in available resources. In the light of this analysis, a number of key issues are examined: in particular the source, composition and end-use of aid funds; the significance of Arab capital; the structure of aid management, and the role of technical assistance in supplementing domestic skills. Apart from these largely qualitative appraisals, the study also attempts to apply Weisskopf's behavioural model to evaluate the contribution of foreign aid to the Sudanese economy. Part II includes an examination of the limitations of such econometric studies.

Part III examines the so-called debt problem of developing countries and its extent. Since foreign aid is not wholly provided in grant form, its inflow into developing countries has been accompanied by a growing debt. Part III contains a critical appraisal of the indebtedness issue of developing countries in the light of recent debates.

Its prime concern is, however, to identify the causes and to demonstrate the immediate as well as the long-term implications of debt difficulties. This is followed by a scrutiny of the debt position of the Sudan, using for this purpose both published and unpublished data.

Finally, a concluding section summarizes some of the most important propositions arrived at in the dissertation.

FOREIGN AID, ECONOMIC DEVELOPMENT AND THE INDEBTEDNESS PROBLEM, WITH SPECIAL REFERENCE TO THE SUDAN

- by -

ABUEL GASIM MOHAMED ABUEL NOUR

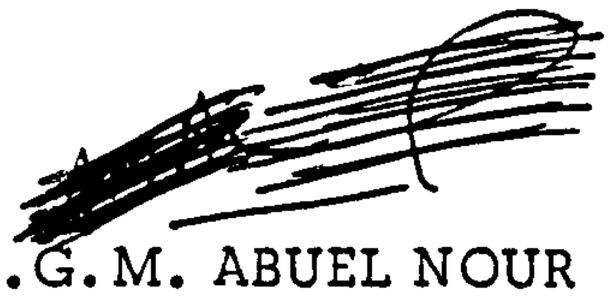
A Dissertation presented to the University of St. Andrews (Department of Economics) for the Degree of Doctor of Philosophy.

St. Andrews, Fife, Scotland. May 1981.

Declaration

I hereby declare that this thesis is based on research carried out by me, that the thesis is my own composition, and that it has not previously been presented for a higher degree.

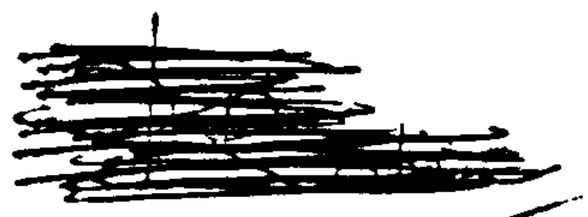
The research was undertaken by me in the University of St. Andrews after my admission as a research student under Ordinance General No. 12 in October 1977 and as a candidate for the Ph.D. degree under this resolution.



A.G.M. ABUEL NOUR
Candidate

Certificate

I certify that the aforesaid candidate has fulfilled the conditions of the Resolution and Regulations prescribed for the degree of Doctor of Philosophy.



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STATEMENT OF QUALIFICATION

The Author graduated in the Faculty of Economic and Social Studies of the University of Khartoum in April 1973 with B.Sc. (Honours) Second Class (Upper Division) in Economics. Then he was employed by the Sudanese Ministry of Finance and National Economy up to July 1974 when he was appointed a Senior Scholar in the Department of Economics at the University of Khartoum.

Thereupon the Author was admitted in October 1975 to read for M.A. (Economics) in the University of Manchester on a scholarship from the British Council and he graduated in December 1977. In October 1977 he was admitted as a research student in the Department of Economics at the University of St. Andrews under the Senatus Academicus General Ordinance No. (12). During this period he was sponsored by the Sudanese government (University of Khartoum).

ACKNOWLEDGEMENT

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Dr. B.R.H.S. Rajcoomar kindly clarified a number of issues related to the econometric parts of this dissertation and willingly perused the final results. I also benefited a great deal from the willingness of other Members of the Department of Economics to offer me advice and to respond to my queries. I acknowledge the assistance of Mr. C.B. Bremener in the Cartography Unit of St. Andrews University in map drawing. My thanks extend to an unlimited number of personalities and colleagues in the different economic units and research establishments in the Sudan for their stimulating ideas and valuable advice on data sources.

Above all, I am grateful to my parents whose love and overwhelming concern have encouraged me during my study period in Britain. I owe a great deal to my wife who supported me, made life easier and dedicated herself to look after our newly-born daughter while I devoted my time to complete this dissertation. I am deeply indebted to the University of Khartoum for their concern and financial support. Finally, my thanks extend to Mrs. E. Kerr for her precision and perfection in typing the final script.

TO MY PARENTS FOR ALL THEIR EFFORTS

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LIST OF ABBREVIATIONS

(i) Periodicals

AER	American Economic Review
BOUIES	Bulletin of the Oxford University Institute of Economics and Statistics
EDCC	Economic Development and Cultural Change
EJ	Economic Journal
ILR	International Labour Review
JDP	Journal of Development Planning
JDS	Journal of Development Studies
JEL	Journal of Economic Literature
JIE	Journal of International Economics
JPE	Journal of Political Economy
OEP	Oxford Economic Papers
RE&S	Review of Economics and Statistics

(ii) Organizations, Institutions ...

AID	Agency for International Development (USA)
DAC	Development Assistance Committee
ECAFE	Economic Commission for Asia and the Far East
DSRC	Development Studies and Research Centre, University of Khartoum, Sudan.
ECGD	Export Credit Guarantee Department, HMG, London.
EEC	European Economic Community
ESRC	Economic and Social Research Council, Khartoum, Sudan.
FAO	Food and Agricultural Organization, United Nations, Rome.
IBRD	International Bank for Reconstruction and Development.
IDA	International Development Agency
IEA	Institute of Economic Affairs, London.
ILO	International Labour Office, Geneva.
IMF	International Monetary Fund
NCR	National Council of Research, Khartoum, Sudan.
ODA	Official Development Assistance

ODI	Overseas Development Institute, London.
ODM	Ministry of Overseas Development, Her Majesty's Government, London.
OECD	Organization of Economic Co-operation and Development, Paris.
OPEC	Organization of Petroleum Exporting Countries.
UN	United Nations
UNESCO	United Nations Education, Scientific and Cultural Organization.
UNCTAD	United Nations Conference on Trade and Development.
UNDP	United Nations Development Programme.
WHO	World Health Organization

(iii) Other Abbreviations and Symbols

D.M.	Deutsche Mark
GDP	Gross Domestic Product
K.D.	Kuwaiti Dinars
m.	million
£S.m.	Million Sudanese Pounds
US $	American Dollars

INTRODUCTION

Of the many challenges that confront most developing countries nowadays, the need to overcome poverty is among the most important. The magnitude of poverty in developing countries is evident from their typically low incomes and it is reflected in the large and growing income gap between the former and the more advanced countries. The alleviation of poverty is now widely regarded as an essential ingredient of economic development as contrasted with economic growth. The latter is certainly a necessary condition for economic development, but it is not sufficient; because development entails certain basic changes in a society and its economy apart from income growth which is the principal criterion of the former. Poverty can co-exist with substantial income growth in a developing country. Nevertheless, although policies must be judged by reference to their contribution to broad goals of socio-economic development, the proximate aim of economic policies in developing countries is to eliminate the various impediments that stand in the way of an accelerated economic growth some of which, self-evidently, will demand social changes.

In the task of promoting both economic growth and development of the developing countries, both theory and development experience suggest that international co-operation in a broad sense has a vital role to play. For most developing countries, foreign trade is, and is likely to remain, the most important ingredient of such co-operation, although in the absence of a so-called new international economic order,

its benefits may be smaller than most developing countries think to be equitable. But despite the overwhelming importance of trade, resource transfers from the more advanced and rich countries have a significant and in many cases, a decisive role as well to play in augmenting economic development. Resource transfers include foreign investment, financial aid and technical assistance. It goes without saying that an important ingredient in the success of development policy is the extent to which the recipient countries themselves pursue the appropriate policies to make effective use of both domestic and external resources at their disposal.

The present study principally examines the role of foreign aid - including both financial and technical assistance - in economic development with particular reference to the Sudan. This focus on aid is not intended to under-rate the significance of other forms of co-operation between advanced and developing countries in promoting the latter's development. This study falls into three main parts which together cover most of the principal issues related to foreign aid, and examine the situation in the Sudan.

Part I is a critical review of the theoretical literature on aid and of the controversies that have arisen in the light of the different empirical investigations which have been attempted to establish its impact upon recipient economies. It also examines the rationale behind the provision of aid and the requirements which are to be satisfied if it is to be used effectively.

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Please note that footnotes and tables are inserted at the end of each chapter to which they are principally relevant and a complete bibliography appears at the end of the dissertation.

PART I

SOME THEORETICAL AND EMPIRICAL ASPECTS OF FOREIGN AID

CHAPTER ONE

The Case for, and the Definition of Foreign Aid

1.1 The Development Gap between the Different Countries of the World: A Cause for Co-operation

An income gap exists between the developed and developing countries and tends to widen over time.[1] Maddison has related this to the different characteristics of the developing nations in contrast with the advanced countries. He wrote;

> "in rich countries, resources are mobile, organized scientific research has institutionalized technical progress, knowledge is easily diffused, there is a well-articulated institutional and financial structure and the fortune of the economy is not tied to a few commodities. In poor countries, problems of structural adjustment are much greater, skills are poor, resources are not so flexible and the economies are more unstable. The modern sector is a highly specialized enclave..." [2]

He then argued for the provision of foreign aid as a means of alleviating these difficulties and of adding to the growth potential of the developing countries. At the same time, however, he emphasized the crucial role of domestic economic policies in the developing countries themselves in overcoming these difficulties, thereby causing the desirable changes which would create dynamism as opposed to stagnation.

The present structures of most of the developing countries are distorted and their development progress is in consequence often subject to a variety of economic, technical, political and social constraints

arising from these distortions. A principal aspect of these distortions is termed 'dualism'. Colman and Nixon explained this as:-

> " that ... subsistence production and production for the market co-exist, old and new technologies are used side-by-side, new social classes have arisen alongside the traditional strata." [3]

The implications of this for the ability of the developing countries to mobilize domestic resources and to accelerate growth are well known. One of its main effects is that the output of the subsistence parts of the economy is low and much below their potential. The burdens of development, therefore, fall primarily on the emergent modern activities of the economy. These constraints to economic growth in Third World countries resulted in an income gap between the developed countries and the former.

The development literature attaches much significance to the reduction of the above income gap. But it is not often explicit whether this reference is to relative or to absolute differences between countries since the existing income gap takes both forms. Thirlwall reminds us that the reduction of the relative income gap would not necessarily prevent the absolute gap from widening particularly if the initial size of the latter is of a great magnitude.[4] The relative income gap between countries can, in fact, be reduced if the rate of increase of the per capita income in the developing countries exceeds that in the advanced countries. But this would not make individuals in the developing countries comparatively better-off than their counter-parts in the advanced countries because the latter increase their command over goods

and services from initially high levels of income, although the percentage increase in their case may be lower than that of individuals in the developing countries. In general terms, however, the desirable goal should always be to narrow both the absolute and the relative income gaps. To achieve that, it is necessary for growth rates in the developing countries to proceed more rapidly than those in the advanced countries, even though the catching up process will be lengthy. If the growth rates in the developing countries merely equalized those in the advanced countries, the existing relative and absolute income gap will continue to widen.

The crucial issue, perhaps, is to eliminate poverty in the developing countries rather than to focus on the mentioned gaps, and this involves accelerated growth. The process of accelerated growth certainly involves the removal of a variety of obstacles to growth, an expansion of agricultural production by raising the productivity of the existing projects and bringing more land under cultivation, an increase in the investment share in GDP as well as an initiation of industrialization policies which primarily use domestically-produced material inputs and also create job opportunities. To ensure accelerated development, as Leontief puts it,

> "two general conditions are necessary: first, far-reaching internal changes of a social, political and institutional character in developing countries and second, significant changes in the world economic order. Accelerated development...can only be achieved through a combination of both these conditions." [5]

Although domestic economic policies will be crucial in bringing about the former, the attainment of both conditions requires co-operation between the advanced and the developing countries and the transfer of resources from the former to the latter. This should ultimately benefit the advanced countries as well. Such gains should result not only from the direct benefits which may accompany aid relationships but also from "the general increase in international trade which would follow international development."[6] Co-operation between advanced and developing countries takes many forms and is diversely motivated. Accelerated development would not necessarily be achieved unless foreign resource transfers to developing countries are adequate, functionally appropriate and are used in an efficient manner.[7]

The inflow of resources into the developing countries can be in the form of private foreign investment, official loans and grants from bilateral, regional and multi-lateral donors or direct borrowing from financial agencies and foreign banks. Foreign aid takes the form of long-term loans, grants and any other unrequited transfers, emergency and food supplies as well as technical assistance. The significance of foreign resources channelled through each of the earlier mentioned sources is different. For instance, private foreign investment necessarily requires the transmission of profits, dividends and remittance abroad and foreign loans require annual debt servicing over their maturity periods but grants are unrequited transfers. The ability of a developing country to acquire more loans from private sources depends on its capacity to service its foreign debt. But this is not

entirely true in the case of aid. In fact, developing countries designated as 'best performers' may not receive more aid than others because political and military reasons also have a direct impact on the size and final destination of aid.

The Pearson Report (1969)[8] proposed a development strategy for the Third World during the 1970's on the basis of the type of co-operation between the rich and the poor countries described earlier. This report was, in fact, intended to present a long-term projection of foreign resource requirement by the developing countries which was believed to be necessary if these countries were to be able to raise their growth rates from the annual average of 5 percent during the 1960's to a target growth rate of 6 percent by the end of the 1970's. Among the main stimuli of that accelerated growth process was a target transfer of one percent of the advanced countries' GDP to the Third World countries. But a necessary condition for the achievement of such target growth rates was that 70 percent of this transfer should be provided on highly concessional terms, the remaining part coming as private foreign investment through the usual market operations. The Pearson Report suggestedthe softening of foreign loan terms primarily to minimize the possibility of debt crises and to put more resources at the disposal of the developing countries. It also envisaged a direct link between the inflow of foreign aid funds and the movement of private foreign capital.

Various difficulties are involved in such a global projection for developing countries which eventually reduce its practical usefulness,

for instance, the varying rates of growth among the developing countries themselves, the diversity of development constraints and the way in which foreign aid funds are distributed among these countries. Despite these difficulties, the recommendations of the Pearson Report formed the broad basis of the United Nations projection for the Second Development Decade during the 1970's.[9] It was suggested that certain conditions were to be met if the developing countries could be expected to achieve the envisaged target growth rates. In addition to foreign resource transfers, the critical importance of certain domestic economic policies in the developing countries themselves was also stressed. These include the implementation of economic policies to ensure a faster growth of industrial output than that of agriculture (this, however, does not mean that the development of the agricultural sector is less important in stimulating the economy but only reflects the low contribution of industry to GDP); the generation of more domestic savings and transforming them into effective investment as well as acquiring a sufficient degree of flexibility to expand exports in relation to the required level of imports. The ultimately desired sustained rates of growth can only be achieved if the appropriate economic policies to effect such changes in the structure of the developing economies are pursued. These elements are generally acknowledged to form the basis of successful development programmes.

The Second United Nations International Development Strategy for the 1970's emphasized the significant role of an appropriate management of domestic economic affairs in the developing countries to

vitalize their economies. If this was to coincide with sufficient amounts of foreign resource transfers, it could be feasible for the majority of developing countries to achieve high rates of growth and eventually to reach a self-sustained growth path. But it was recognized that the existing channels of resource transfers into the developing countries may not be capable of transferring the necessary resources to achieve the prescribed targets. In addition to the required increase in the volume of foreign aid, there was consequently a stress on switching significant amounts of these funds from bilateral to multilateral sources to ensure continuous support for the development programmes. The rationale for, and the difficulties involved in such a switch of foreign aid structure will be examined in the next section. Also, there was a desire by the United Nations to see that donors should generally soften their loans so that borrowing by the developing countries would not lead to unmanageable levels of indebtedness and that the proportionate size of tied loans should in any case be reduced.

To ensure an effective use of foreign aid funds, donors may wish the recipient countries to undertake certain policies which could affect the prospects of development in the latter. For example, the Pearson Report suggests that,

> " aid givers cannot be indifferent to whether population problems receive the attention they require and both bilateral and multilateral agencies should press for adequate analysis of these problems and their bearing on development programmes." [10]

These problems are generally acknowledged to have adverse effects on the outcome of the development programmes.[11]

1.2. The Definition of Foreign Aid, and Recent Suggestions to Raise the Effectiveness of Aid Programmes by More Multi-lateral Disbursement

The current use of the term 'foreign aid' carries many shades of meaning. Ambiguity surrounds its definition. This arises mainly because of the over-lapping motives and objectives behind the provision of foreign aid to the developing countries. Another element that contributes to the lack of a common agreement on a more precise, operational definition of foreign aid is the difference in the forms by which an act of resource transfer into a developing country can take place. Some acts of foreign aid may not indeed be easily quantified, such as the aid element embodied in preferential trade agreements. This suggests that formal aid calculations may not indicate the effective amount of foreign assistance a certain country is receiving. Variations in different estimates of the magnitude of aid from one source to another can be explained mainly by the adoption of varying definitions and scope of coverage. An explicit and clear-cut definition of foreign aid would assist in setting a distinction between what can be classified as aid in contrast to other resources inflow into a certain country.

Our main concern throughout the present study is with 'economic aid' or 'assistance', that is, with the amounts of resources that are transferred on concessional terms for promoting socio-economic development in a developing country. The former is sharply distinguished from the amounts of foreign aid funds that are provided for non-economic purposes, notably, military aid. However, not all economic aid such as balance of payments and budget support is necessarily for developmental

purposes in the strict sense of the term although it might be a vital element to the over-all success of a development programme. Economic assistance, therefore,

> "consists of explicit transfers of real resources to less developed countries on concessional terms. Unless the resource transfer involves, to some degree, more favourable terms than those available commercially, there is no gift element involved." [12]

Accordingly, private foreign capital inflow into the developing countries and aid are not synonymous. "Aid, properly speaking, refers to those parts of capital inflow which normal market incentives do not provide." [13]

In order that an act of external resource transfer into a certain country should qualify as aid, it should have two specific characteristics:- [14] (i) It has to be a resource flow which would not otherwise take place without the intervention of special machinery and procedures, that is, bilateral or multilateral agreements. It is distinct from a flow of goods and services that takes place by the means of market operations such as private transfers which are motivated by profits. (ii) The conditions and terms of such a transfer should be more favourable than those which normally apply to commercial transactions or borrowing. A concessionary element is therefore an integral part of any act of resource transfer which can be classified as aid. In such cases, the developing countries acquire foreign resources although the present investment opportunities they offer may not encourage the inflow of foreign capital through the market mechanism.

The distinction made above is important in view of the multiplicity

of sources and types of foreign capital inflow into the developing countries. These inflows include private foreign investment and borrowing from international financial lending institutions and agencies on terms dictated by the state of the market, which cannot be regarded as foreign aid. (However, borrowing from international institutions may sometimes embody a certain degree of concession in consideration of the economic situation in a particular country). Estimates of the magnitude of foreign aid also exclude short-term suppliers' credits and medium-term loans which are in fact "selling devices for tied exports of equipment goods."[15]

Foreign aid then consists primarily of long-term loans repayable in foreign currencies, interest-free loans and grants. The 'harder' the loan's terms become, the more it approximates to commercial transactions. The line between them is drawn by calculating the grant element of the given loan. The main characteristics of a long-term aid loan are identified in relation to the existing terms of borrowing from international markets. They include:- lower interest rates, longer grace and maturity periods. These conditions are necessary to allow recipient economies to absorb the borrowed funds and eventually to increase their debt servicing capacities. Obviously, they increase the grant elements of foreign loans. (The grant element of a loan is that percentage of the total amount of the loan - calculated at a discount rate over its life-span - which does not require repayment).

Some loans may include provisions for repayments in domestic, unconvertible currencies rather than in foreign exchange. These funds

may be spent by the donor in the country or otherwise re-lent to cover parts of the local currency component of certain projects. In the latter case, it may ease the impact of a liquidity crisis on the particular project if that happens to be the situation. Repayments may also be in goods. Such aid practices soften the terms of loans by raising their grant elements.

As was mentioned before, economic aid may not necessarily make a direct and immediate contribution to economic development. A few examples will illustrate this type of assistance. A food aid programme to meet an emergency need in a developing country due to critical shortages caused by factors such as war or persistent drought does not count as development aid. Another example is foreign technical assistance which is certainly more beneficial in the long rather than the short term. Technical assistance is an essential part of foreign aid programmes which makes it necessary to estimate its size, although this may in some cases prove difficult.

Foreign loans may be 'conditional' or 'tied.' A loan which is tied by source may involve an extra cost to the recipient country than that which is apparent in its terms if other competing suppliers exist and could supply similar goods at relatively low prices. A country which seeks foreign loans on any terms to finance its development programme may end with an inappropriate type of technology and also might incur excessive costs. The recipient country can reduce the extra cost of a tied loan if it can exploit substitution opportunities that exist in the donor's market and indeed in other countries' markets, unless the terms

of the particular loan also specify the technology. An aid loan may also be project-tied in the sense that funds are provided for specific items of expenditure on a certain project. This may distort the over-all development priorities of the recipient country because the specified project may not be of immediate concern and may rank low among the various projects. However,

> "source-tying of aid will generally impose costs, inclusive of monopolistic pricing by suppliers, even when ideal procurement policies are followed. Moreover, these costs are likely to be accentuated when the donor countries also specify the end-use, by project or otherwise, of source-tied aid." [16]

Foreign aid, therefore, comes from private and official sources in the developed and the rich countries in cash or kind. Official aid refers only to those foreign resource transfers that are put at the disposal of governments in developing countries by other governments, multi-lateral or regional institutions. Almost all multi-lateral aid is regarded as an official flow of resources. This includes loans and grants from the different international agencies such as the IMF, IBRD, IDA and the UN specialized agencies such as WHO and UNESCO. It also includes aid from the regional financial agencies such as the Inter-American, the Asian, the African and the Arab Development Banks, the Islamic Bank and the OPEC Fund . . . . A donor country may establish its own aid agency such as AID in the case of the United States of America. In particular circumstances, a group of donors may join together in an aid consortium to assist a certain country or region. An example of such arrangements was the 'Colombo Plan' when a group of donors joined their lending efforts

to provide, and to ensure the continuous flow of aid into the Indian sub-continent countries. At the present time, aid consortiums normally assist those countries which face critical debt servicing difficulties.

The costs imposed on the recipient countries by the limitations of bilateral aid has led economists to argue for shifting more resources to the international financial agencies so that the largest part of assistance to the developing countries could be provided on a multi-lateral rather than on a bilateral basis. It is widely believed that such a source-shift of aid could reduce direct donor-to-recipient pressures and might promote the continuity of funds inflow into the developing countries. Table 1.1 shows that during 1970-76 there was in fact a tendency for the percentage share of multi-lateral aid in the total official inflow of resources into the developing countries to increase.

Although the arguments for the source-shift may be persuasive in as much as it is widely believed that it would lead to an effective use of aid funds and an equitable distribution of these funds among developing countries, such a switch faces difficulties:- (i) Donors may not be willing to channel the whole or most of their aid to developing countries through multi-lateral agencies because of the benefits that accrue to them from a direct aid relationship such as trade links with particular sources of supply or demand. (ii) Public opinion in donor countries may prove hard to convince with regard to the significance of the described aid redirection. (iii) Donors may feel that they could lose direct control over the direction of their aid funds in the sense that they might be willing to favour those developing countries with whom they have close

economic and political ties. For example, the British government may be willing to extend more aid to members of the British Commonwealth than to non-members. Bilateral aid could also be used as a means of expressing dissatisfaction with particular policies pursued by a recipient country which are believed to be against the donor's own interests. (iv) Foreign aid is only one aspect of international co-operation between countries and so donors may find it vital to reach agreement on certain issues such as 'the energy problem' before considering such source-switch of aid. (v) The institutional structure of the multi-lateral agencies in its present capacity may not be capable of administering significantly larger amounts of funds than the existing levels. This is evident from the various proposals for establishing new multi-lateral agencies to set the scene for a new international economic order. Any considerable source-shift of aid may necessarily have to be preceded by the establishment of new international aid agencies.

To sum up, foreign aid is an integral part of foreign capital inflow into the developing countries. It takes many forms and extends to various developmental activities. Motives behind aid provision are diverse. Its role and contribution to the growth potential of the developing countries is controversial.[17] There is however a case for more effective aid programmes which is accentuated by the rate of increase in the size of indebtedness of the developing countries and its possible impact on their development progress as well as the extent of primary poverty in certain countries. The former issue will be considered in Part III. Finally, even if the rationale behind the advocacy of a source-shift of aid is persuasive, there are certain issues which have to be considered before the new arrangement could be put into effect.

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12. Bhagwati, J.N. and Eckaus, E.S. eds. (1970); Foreign Aid, Penguin Modern Economics Readings, p.7.

13. Rosenstein-Rodan, P.N. (1961); International Aid for Underdeveloped Countries, Reprinted in Bhagwati, J.N. and Eckaus, E.S. (1970); op.cit., pp.85-6.

14. Hawkins, E.K. (1970); The Principles of Development Aid, Penguin Modern Economics, Ch. 2, p.28.

15. Rosenstein-Rodan, P.N. (1961); op.cit., p.87.

16. Bhagwati, J.N. (1967); The Tying of Aid, Reprinted in Bhagwati, J.N. and Eckaus, E.S. eds. (1970); op.cit., p.263.

17. The literature on foreign aid and growth in developing countries could roughly be said to have passed through four phases. In the first phase, aid was considered as a net increment to the recipient's capital stock and hence would supplement domestic savings and raise the growth rate of the economy. The second and third phases were dominated by empirical investigations which either showed negative correlation between aid and other domestic variables and concluded that aid is unproductive or otherwise established positive relationships between them and asserted that aid funds had positively contributed to the recipient economies. The fourth phase is characterized by the emergence of debt difficulties. See, a recent article by Mosley, P. (1980); Aid, Savings and Growth revisited, Oxford Bulletin of Economics and Statistics, Vol. 42, No. 2, pp.79-95.

TABLE 1.1.

The Percentage Distribution of Official Aid Between Bilateral and Multilateral Sources for 87 Non-oil Exporting Developing Countries: 1970-76

Years	Bilateral	Multilateral	Total
1970	74.5	25.5	100.0
1971	73.0	27.0	100.0
1972	71.2	28.8	100.0
1973	69.9	30.1	100.0
1974	68.2	31.8	100.0
1975	71.1	28.9	100.0
1976	67.3	32.7	100.0

Source: World Bank (1978); World Debt Tables: External Public Debt of Developing Countries, Vol. I, Doc. No. EC-167/78, pp.76, 92.

CHAPTER TWO

The Two-Gap Analysis

2.1. The Theme of the Two-Gap Approach to Aid and Development

The inflow of resources into developing countries has assumed a central position in modern development theories. There is however a growing concern about its productivity and allocation. The focus on the crucially important role assigned to external resources is generally believed to be the outcome of the 'desire' of the majority of developing countries to achieve what amounts to a 'big push.'[1] In other words, there is a growing desire to transform the present relatively poor and stagnant economies into ones whose normal conditions are self-generated growth paths. The two-gap approach is an attempt to explain the existing and the potential limits to economic growth, the extent to which these limits can be eliminated by foreign aid and the necessary conditions that must be satisfied if such countries are to reach the development stage where they would no longer need foreign aid in its present concessionary forms. Put differently, the two-gap approach attempts to provide a description of some existing situations of structural disequilibrium and to recommend the use of foreign resources to eliminate the obstacles that normally hinder development. It draws from the post-war experience of those developing countries which could achieve and maintain self-sustained growth by an effective use of foreign resources.

The two-gap analysis suggests that the growth path of a typical

developing country will be constrained either by shortages of domestic savings to finance the investment requirements to achieve a target growth rate or by a shortfall of export earnings to finance imports needed to support the mentioned target. In the former case, growth would be investment-limited. In the latter case, the economy would be caught by foreign-exchange deficiencies and growth would be trade-limited. Apart from these two constraints, such an economy is likely - at least in its earlier stages of development - to face difficulties arising from its limited capacity to absorb an annually increasing size of investment activities. Since the availability of skills (technical and administrative) is an important element in determining the level of capital absorption in the economy, the growth path may be termed 'skill-limited.'

While the various studies on the role of foreign resources into developing countries have treated all capital inflow in the same manner, irrespective of its purpose and origin, the conclusions drawn usually refer to foreign aid only. The issue is two-fold: first, there is overwhelming desire to determine the exact role that foreign aid can play in augmenting economic development in order that a time-limit can be set where it would no longer be necessary for a given country to acquire it for developmental purposes. The decisive issue in this connection is that dependence on foreign aid should decline in importance over time as a result of an escalation of a self-financed development process until the economy reaches a stage where concessional aid funds are no longer an essential element for the continuous maintenance of the target growth rate. The second issue may be said to be a desire by

development economists and policy-makers to develop an economic criterion to support and to justify the extension of foreign aid to developing countries, and also to offer an economic rationale to wealtheir nations on the appropriate size of their foreign aid programmes, funds allocation and methods of control. However, this should not be taken to indicate that foreign aid is always motivated by economic factors because historical relations, political ties or other factors may, by far, outweigh the economic motives.

In a pioneering article, Rosenstein-Rodan (1961)[2] studied the inter-dependence process between foreign capital inflow and economic growth in a number of developing countries in an attempt to determine the long-term foreign resources requirement of the latter. The external resource requirement is determined by the difference between the maximum attainable domestic savings and the investment size needed to achieve and support a given target growth rate. Foreign aid is not usually meant to contribute in raising the standard of living in the recipient countries in a direct manner, but - supposedly - to permit them to make a transition from situations of economic stagnation to a state of dynamism and a self-generated growth path. This could be fulfilled by closing the initial gaps and also those which would emerge during the growth process.

> " The over-all aim of development aid is not to equalize incomes in different countries, but to provide every country with an opportunity to achieve steady growth. Aid should continue not until a certain income level is reached in underdeveloped countries, but only until those countries can mobilize a level of capital formation sufficient for self-sustaining growth." [3]

Therefore, foreign capital inflow in general and foreign aid in particular should be aimed at supplementing domestic savings during a certain development stage. An annually increasing rate of domestic savings is, therefore, an important ingredient to ensure a growing level of domestic contribution to investment over time.

> "A marginal rate which is much higher than the average rate of savings is the main lever of a development programme and should be the principal condition of aid to underdeveloped countries." [4]

This consideration forms the basis of a performance criterion which is supposed to reflect the ability of the recipient countries to pursue sound economic policies and to use foreign funds effectively.

Rosenstein-Rodan's analysis focused on two issues with regard to developing economies: their limited absorptive capacity and the possibility of a domestic saving constraint. There is no explicit discussion of a possibility of a foreign exchange constraint although it seems that most developing countries are likely to face such a limit on growth in their attempts to implement large industrialization and modernization programmes. The lack of discussion of a trade-limit may indicate that Rosenstein-Rodan was considering those developing economies which were either closed or had unlimited export possibilities to pay for imports at the given terms of trade; or which had access to unlimited foreign resources inflow.[5] Also, he may have implied that the growth process in the developing countries is almost always limited by shortages of domestic savings. Such an interpretation can be thought of in terms of the two-gap analysis, that is, the foreign aid requirement

should be determined in relation to the size of the dominant gap and that it should close all of them simultaneously. However, Rosenstein-Rodan was largely drawing from the experience of countries in South-East Europe where conditions were different from the present situation in the Third World and he did not explicitly refer to these considerations. His analysis requires modifications before it can be applicable to the present situation in developing countries. This leads us to a consideration of the two gap analysis.

The literature on the two-gap analysis is voluminous. The following discussion will mainly draw from the early contributions of McKinnon[6] and of Chenery and Strout[7] for the purpose of outlining the basic theme of the two-gap approach and the general assumptions that underlie it. Other contributions will be referred to during the critical appraisal and the evaluation that will follow.

To begin with, McKinnon (1964) developed a Harrod-Domar type model in an attempt to explain the different gaps that are likely to face a developing country at different development levels. His analysis mainly focused on the time-sequence of the gaps' appearance and the contribution of foreign capital transfer to overcome them. The given economy would not be capable of achieving its target growth rate if its capacity to increase exports has already reached the maximum obtainable limits. In that case, a bottleneck (foreign exchange) constraint would emerge and this would lead to under-utilization of domestic resources. The growth rate will not be dictated by the size of domestic savings which is greater than the maximum export capacity. Foreign capital transfers

should ease the demand pressures on foreign exchange and hence raise the attainable growth rate. This is a typical situation of a developing economy that relies on the importation of capital goods only. In diagram 1, the growth rate is 'as' where 'a' is the aggregate output-capital ratio and is composed of the sum of units of capacity requirement of domestic and foreign capital: 's' is the aggregate marginal propensity to save of the economy. '$e\beta$' is the maximum foreign exchange revenue that is available for capital goods importation, where 'e' is the marginal propensity to export and 'β' is the output-foreign capital requirement. In its initial stages, the economy is hindered from achieving its growth rate because $e\beta < as$, that is, a bottleneck constraint is in existence. Foreign capital transfers should remove this constraint by making it possible to import more capital goods than before. At the point 'P', foreign exchange should no longer impose a limit on the growth rate and

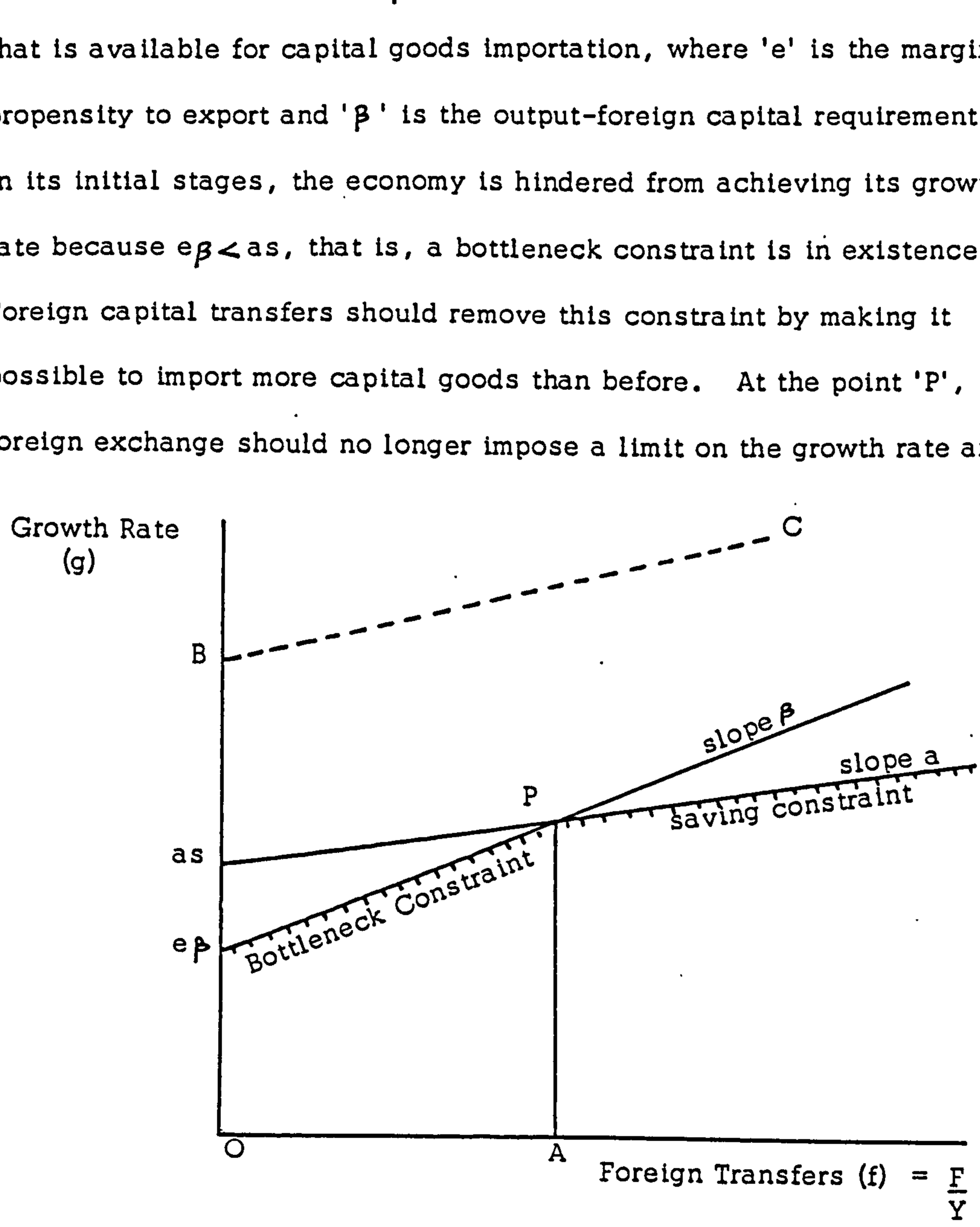


Diagram 1 : Effects of Foreign Transfers on the Growth Rate.

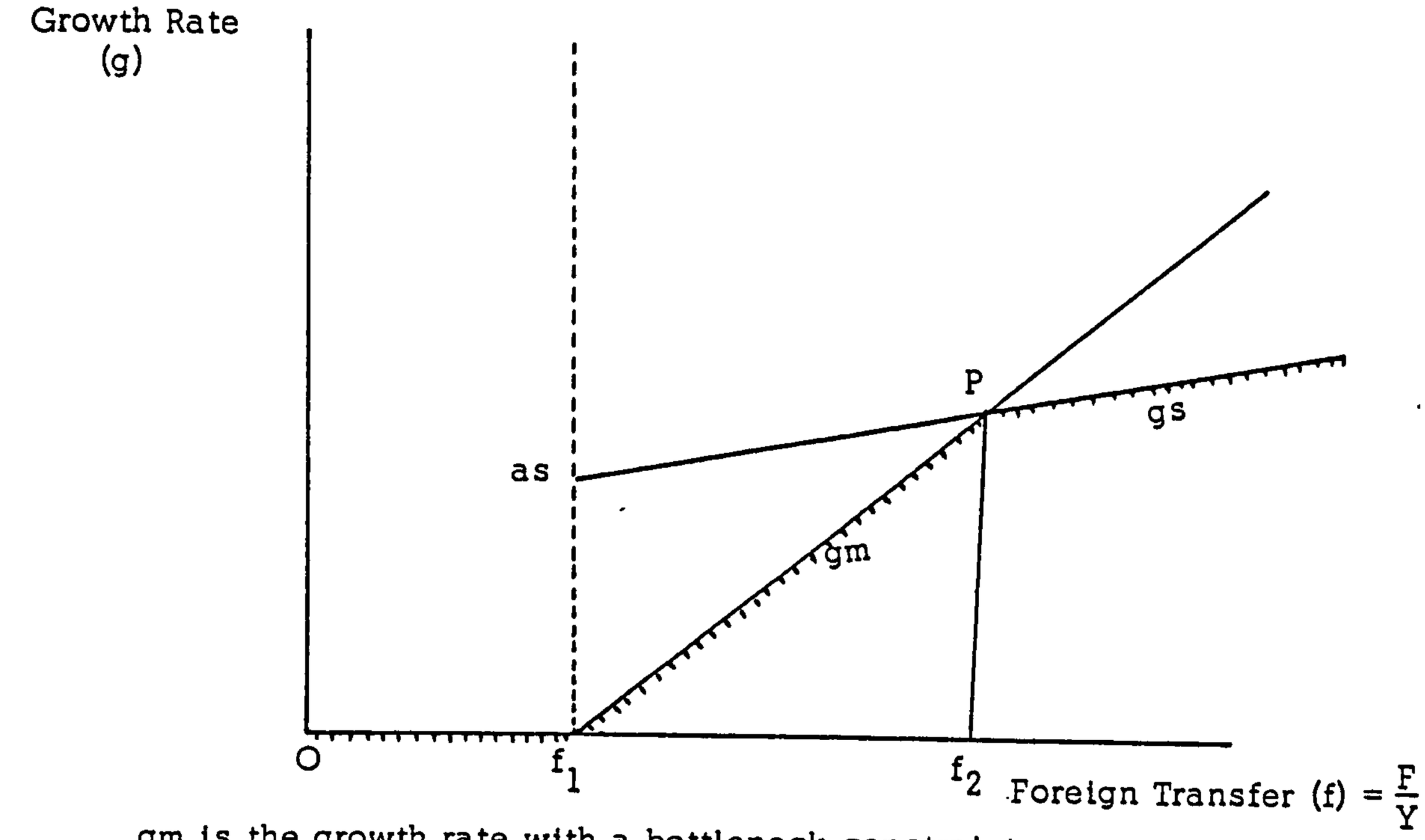
the economy should then enter into a saving constraint zone.

McKinnon is of the opinion that the productivity of foreign capital transfers is higher when a foreign exchange constraint is binding than that in the case of a saving constraint. This suggestion is clearly evident in diagram 1 where the slope of the foreign exchange constraint is steeper than that of the saving constraint. The contention is based on the assumption that expenditures on foreign capital goods would form a small fraction of the total domestic capital formation. In other words, the impact of foreign capital transfers would be large under the bottleneck constraint if 'β' is large, that is, the foreign capital goods requirement is relatively small. For these reasons, if $e\beta >$ as, that is, a bottleneck constraint does not hold when f = o, then, it may never hold (see the dotted line BC). Instead, a saving constraint would be binding for any given foreign capital transfer in this situation.

Unlike the above case, if the economy would necessarily have to import raw materials, spare-parts and consumer goods in addition to capital goods, then the growth rate is likely to be zero in the initial stages even though there are foreign transfers. This is because any appreciable rise in income would tend to generate current imports in excess of the attainable level of exports. A minimum level of foreign transfers (that is, greater than 'f_1' in diagram 2) would be required so that foreign exchange availability could be sufficient to permit the economy to operate at full capacity and also to allow the process of capital accumulation to take place. In diagram 2, the zone from 0 to f_1 represents a situation where a given economy is assumed to be in need of structural

changes. Unless they take place, 'f' may affect its level of income but not necessarily its growth rate. Countries receiving aid in the region leftwards of f_1 would spend these funds primarily to keep their economies from the state of economic collapse, and almost all foreign funds would be spent on current expenditures with no significant capital accumulation expected to take place.

In the same article, McKinnon presented what he described as 'a more realistic model' in which domestic efforts to raise the existing level of capital formation are evident, that is, there are increasing average propensities to save and export. The rigidities of his previous models in assuming fixed propensity to save are lifted. The first case is that of an economy with an increasing marginal propensity to save. This is a necessary condition to attain a self-sustained growth rate.



gm is the growth rate with a bottleneck constraint.
gs is the growth rate with a saving constraint.

Diagram 2 : The situation in an Economy where Exports are less than Current Material Needs.

The economy will start development with the support of foreign transfers sufficient to fill the savings gap. Then the time-span of such transfers will depend on the speed by which the economy can move towards the achievement of a self-supported growth path. In diagram 3, $F_t = I_t - S_t$ where F_t fills the existing gap between the available domestic savings and the investment size required to achieve a given target growth rate.

At time t_1, F should terminate and the excess of S over I could be used to service past debts. An initially high and increasingly growing rate of domestic savings should result in an early termination of F (at t_2). The amount, and time-path of foreign transfers and the growth rate of the economy are, therefore, determined by the size of the marginal propensity to save.

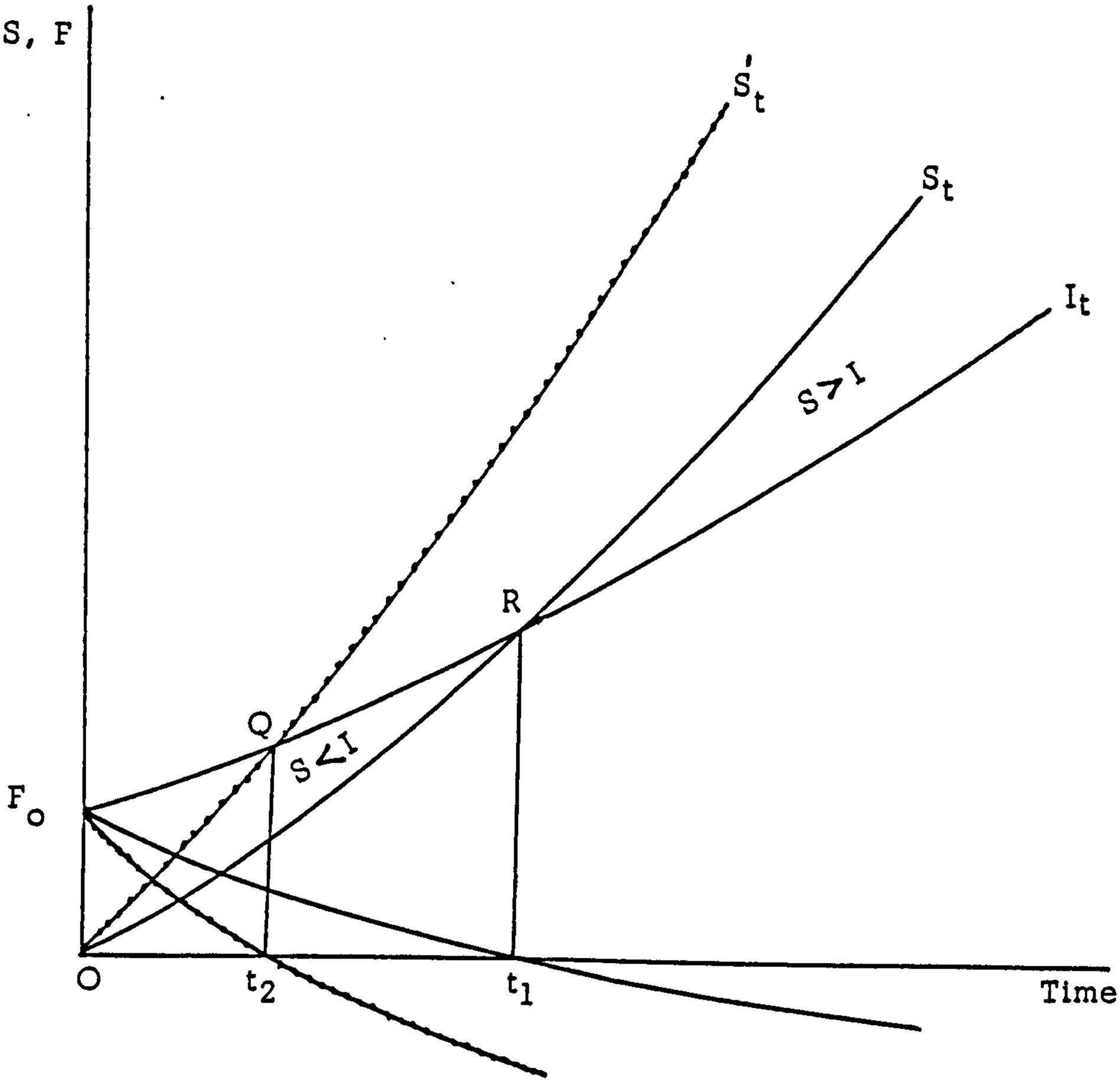


Diagram 3 : The Time-Path of Foreign Transfers with a rising Propensity to Save and no effective Export limitations.

The second model refers to a situation where there is a binding foreign exchange constraint. McKinnon held the opinion that "a bottleneck constraint will not be effective at the start of a development programme in the sense that the economy can provide domestic savings but not earn the foreign exchange necessary to purchase foreign capital goods."[8] This can only take place in an economy which starts its development process with both zero savings and zero export possibility because the whole of the initial level of investment (both domestic and foreign capital goods) would have to be financed by foreign aid. However, when a domestic savings constraint is not dominant but still the growth rate cannot be achieved because of foreign exchange shortages then foreign transfers should ease the latter constraint. As in the previous case, the time-path of foreign transfers would largely depend on the initial size, and the rate of increase of the marginal propensity to export. It could be relatively shorter than in a case of a domestic savings constraint, because if export earnings progressively increase, then foreign exchange could soon be generated to offset the initial high levels of foreign capital requirement necessary to support a desired growth rate that is higher than before.

Finally, McKinnon briefly discussed the case of an economy taking into account an independent skill-limit on growth. This limit can be incorporated in the previous models by raising the capital-output ratio. However, it is likely to dominate at the later stages of development. But in a fairly primitive economy, the adverse effects of the skill-limit can be felt at an early stage of development (in the lower range of BC in diagram 4). If adequate consideration is given to raising the technical

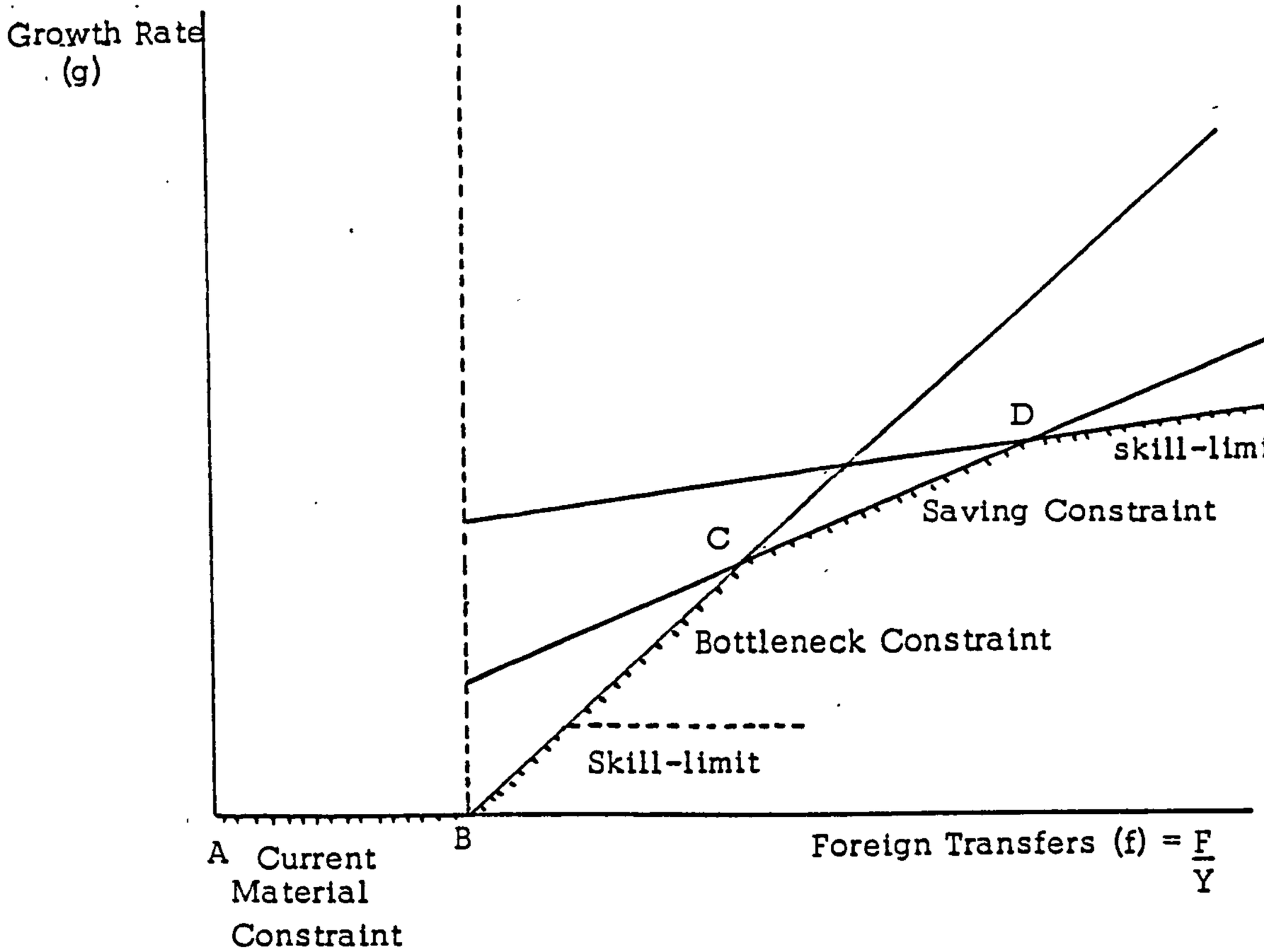


Diagram 4 : Sequential Appearance of Growth Constraints.

and organizational capacities of the labour force at this early stage, then this limit may not at all dominate again to the contrary of what is shown in diagram 4.

The later presentation of the two-gap model by Chenery and Strout and subsequently by Chenery and associates in a number of articles might not seem to differ in substance from that by McKinnon. The former have discussed an elaborated resource planning model in which the three constraints mentioned earlier and their time sequence are separately examined.

According to Chenery and Strout, a typical developing economy is usually bound to pass through three sequential constraints distinguished by the one that dominates at a particular stage. It is a three-phase

thesis which attempts to determine the amount of foreign aid that can be effectively used by a developing country at any particular time.[9] Utilizing a Harrod-Domar one-sector model which assumes that a specified amount of investment would be needed to increase output, Chenery and Strout showed that in the early stages of its development process, a developing economy would be constrained by insufficient investment opportunities due to the limited nature of its absorption. This would be reflected by shortages of complementary-input supplies and also by critical shortages of the required human resources. The latter is the skill-limit "reflecting the skill formation required of managers, skilled labour and civil servants in order to increase productive investment."[10]

The analysis starts with a description of phase I which is characterized by a constant increase in investment and an accelerating growth rate of income. The gap is between the maximum absorptive capacity of the economy and the available domestic savings. Resources would be wasted if the economy projects its foreign aid requirements on the assumption that a domestic savings gap is dominant at this stage. The appropriate economic approach would be an emphasis on the provision of basic infra-structure for a potentially modern economy which includes the exploration of the future prospects of the economy, secular training and mass education.

Therefore, the role of foreign aid in phase I is mainly to provide different forms of technical assistance. The absorptive capacity of a developing economy should increase as the development activities expand

and spread their leverage impacts. But this should not imply that developing countries are not to be concerned about an initial short-term increase in their absorptive capacities. These countries would, in fact, need fairly heavy capital investment in a relatively short period so as to be capable to break away from economic stagnation and to ensure that future developmental efforts would not be frustrated by any retarding elements.

The economy should by-pass phase I when it can absorb a level of investment sufficient to achieve a given target growth rate, and that should reflect, among other things, that the amount of foreign aid funds which any economy can acquire is generally limited. The economy would, then, move to phase II where the availability of domestic savings is the limiting factor to growth. However, it would still be in a domestic resources-constrained type of growth. In other words, both phases (I and II) constitute the domestic resource-gap because they comprise a constraint that arises from the deficiency of domestic resources rather than that which would arise as a consequence of the 'openness' of the economy.

Once the economy moves into phase II, its growth rate will be subject to constraints of a different nature. Although it is now capable of absorbing adequate amounts of investment to support a target growth rate, it faces a domestic saving constraint. This phase corresponds to the relationship developed by Rosenstein-Rodan.

Domestic saving is a function of the total national income. It

is determined not only by the before tax propensity to save but also by the government's ability to raise total savings by effective changes in the existing tax-structure and other policies designed to ensure a higher level of domestic savings than before. The specification of phase II is based on the assumption that the given economy has already developed an efficient system for raising the level of domestic public savings and for mobilization of private savings. The over-all size of investment and its annual rate of increase will be dictated by the choice of a target growth rate. Unless the marginal rate of savings gradually exceeds the marginal rate of investment, the need for foreign capital inflow will not decline over time and the economy cannot overcome this gap.

Success in overcoming phase II is decisive in the attempts to set the economy into the desired goal of a self-sustained growth path. It indicates the economy's capacity to achieve and to maintain a target growth rate and this, in itself, means an efficient mobilization and an effective use of domestic resources. However, although it might be possible to achieve a target growth rate, this does not necessarily lead to a situation of a continuous self-sustained growth rate.

Once the given economy achieves a rising level of domestic savings and its dependence on foreign aid gradually declines in importance, this indicates that it is approaching the final phase in its drive towards self-supporting growth path. Phase III reflects the structural rigidities that are widely held to surround developing economies and the problems they face in relation to foreign trade. There

is certainly an annually increasing demand for imported capital goods, raw-materials and spare-parts to support the development programme. There is also a growing demand for consumer goods. A substantial proportion of the latter would have to be imported; at least in the initial stages of this phase. This import requirement results from

> "the relatively inelastic demand for a large proportion of the manufactured goods currently imported - particularly intermediate goods and investment goods - arising from the lack of domestic supply and their necessity in production." [11]

A minimum level of imports would be required to maintain the target growth rate of the economy. Any level of imports belowa certain minimum limit would result in excess capacity in the productive units and misallocation of resources. The marginal import ratio would therefore represent a structural limitation in the immediate future. It could be reduced in the long-run by the establishment of import-saving industries which use domestic raw-materials.

On the other hand, the economy's ability to increase its exports drastically is practically limited due to the composition of its exports which are mainly primary products. The inelastic supply conditions of these products and the changing composition of world demand for certain products, such as man-made fibres as a substitute for cotton, would make it difficult to increase export proceeds substantially. Apart from these factors, world market arrangements often dictate the amounts to be exported and their prices and over that, trade barriers exist between developed and developing countries. Also, the decline

of the over-all demand in the developed economies themselves because of, say, a recession would add to these factors. However, for a foreign exchange constraint to be dominant, the size of exports should reach the maximum attainable level and the amounts of imports have to be sustained at the minimum possible level sufficient to maintain the growth rate. In the absence of foreign aid, the growth rate would then be dictated by the behaviour of the foreign sector. The difference between exports and imports would determine the required size of external resources that is necessary to sustain a target growth rate. Otherwise, savings would either fall below their potential or else less productive investment would take place.

Although there is no necessary sequence for the appearance of phase III, it is less likely for a trade limit to appear during phase I since the rising level of foreign capital inflow may not make it even necessary for exports to increase as fast as imports. But once a target growth rate is attained, exports should rise more rapidly than imports as the economy enters phase II and remains there as far as domestic savings is the only limit to growth. If not, the economic indicators would point to the end of phase II and mark the beginning of phase III. This clearly indicates that the three described phases could follow in any order if, according to Chenery and Strout, the structural parameters are allowed to change randomly. But with fixed parameters, phase I is definite and should be followed by phase II or III. Moreover, if the trade limit holds in phase I, then it would be characterized by two sub-phases: IB to indicate the dominance of the trade limit (although, according to Chenery

and Strout, this is not of great empirical significance)[12] and the dominance of the domestic resources limit would be called IA.

Finally, the projection of the total size of foreign capital for the whole process of transformation to a state of self-supported growth stream is determined by adding up the amount required to fill each individual gap during the three phases. It is based on the estimated values of four parameters; saving, investment, imports and exports and an assumption on the aggregate capital-output ratio.

2.2. The Main Criticisms of the Two-Gap Approach to Aid and Development

The two-gap analysis has been viewed both as a major contribution to the development of a methodology to investigate the factors that presumably prevent the developing economies from achieving self-sustained growth and as an analytical tool for the projection of foreign resource requirements of these countries at different development stages. It broadly assumes that the only limiting factor to economic development is capital: both physical and human. If capital could be made available, then the economy should eventually move to a self-supported stage of development. The analysis further rests on implicit assumptions of a stable socio-political structure that favours economic development. These assumptions may not be valid in typical developing countries. Development in fact, takes place as a result of the interaction of economic, social, institutional and political factors. Signalling only one factor as the cause of backwardness (implying that all these essential ingredients to development are already in existence)

may not be appropriate for many developing countries.

The two-gap analysis assumes the existence of certain constraints on the structural relationships between the different economic variables, such as the inability to raise the level of domestic savings sufficiently, and more importantly, to transform an appreciable part of that into foreign exchange through international trade. Bruton[13] was first to question the validity of such models in reference to the present situation in developing countries. He pinpointed two main issues: the existence of two distinct gaps during a given short interval of time and their origins.

To illustrate his criticisms, let us suppose that we have an economy which necessarily imports all (and only) its capital goods requirement, the whole of its exports are consumer goods and there are no apparent changes in inventories of consumer goods or foreign exchange reserves. The possible explanation of the two-gap situation would then basically depend on the relevant assumptions about the elasticity of the foreign demand curve. Diagram 5 illustrates this situation where the horizontal line 'cf' represents a perfectly elastic foreign demand curve for the exports of a given developing country. 'ss' and 'dd' are the supply and the domestic demand curves for the exportable consumer goods. The economy produces OB which is partly used to satisfy domestic consumption (OA) and partly exported (AB). If domestic savings are to be increased by refraining from consuming the exportable commodities, then the domestic demand curve should shift leftwards to d^1 d^1 adding an amount of DA to the exports at the given price level. Therefore, the reduction of the level of domestic consumption has in fact resulted in the

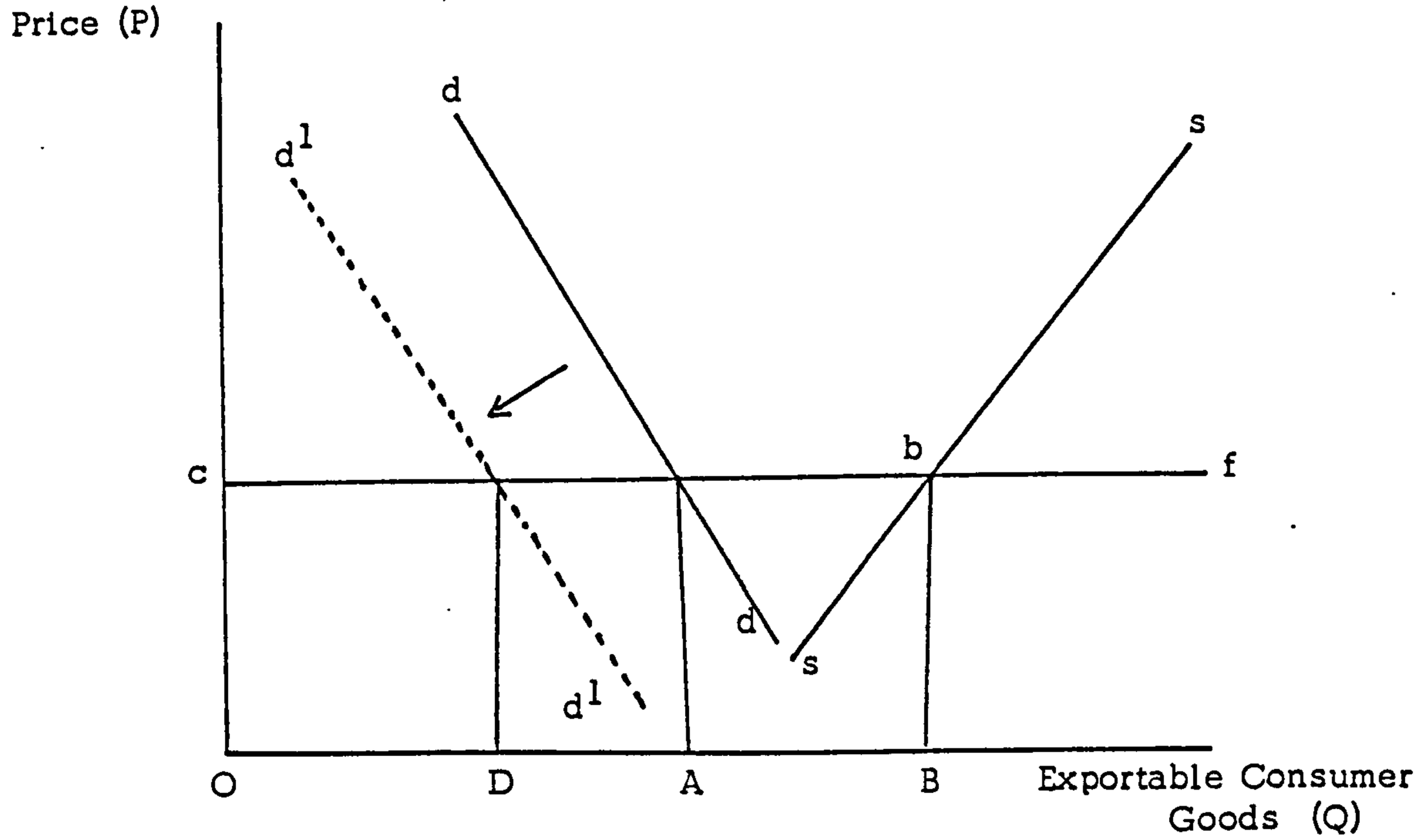


Diagram 5 : A Perfectly Elastic Foreign Demand Curve for Exports.

expansion of exports. In such a situation, there can be no trade gap that is distinct from a savings gap.

In contrast to that, diagram 6 illustrates a situation where the foreign demand curve for the exports of the given developing country is perfectly inelastic. The curve 'tt' represents the total demand curve obtained by horizontally summing 'dd' (the domestic demand curve) and 'ff' (the completely inelastic foreign demand curve). To raise the level of domestic savings by shifting dd to d^1 d^1 would eventually force the price level downwards from OP_1 to OP_2 because foreign demand would in this case not be affected. The impact of falling prices would therefore induce an increase in domestic demand or otherwise unemployment would occur. There is, of course, no possibility of transforming a part of the forced savings into foreign exchange. However, if domestic demand falls and prices follow, then the resultant increase in domestic savings could be transformed into capital formation but at higher costs

than before. A given rate of capital formation would normally require more savings than when price was at P_1 (see the cited Article). When the rate of capital formation approaches its maximum obtainable level, then the achievement of a target growth rate that requires a higher rate of capital formation than this maximum would be constrained by a trade gap. Such a gap cannot be closed by further increases in the rate of domestic savings. This situation resembles that of a typical developing country whose exports are mainly traditional products. Devaluation would not help to increase foreign exchange earnings but to the contrary may in certain circumstances reduce it.

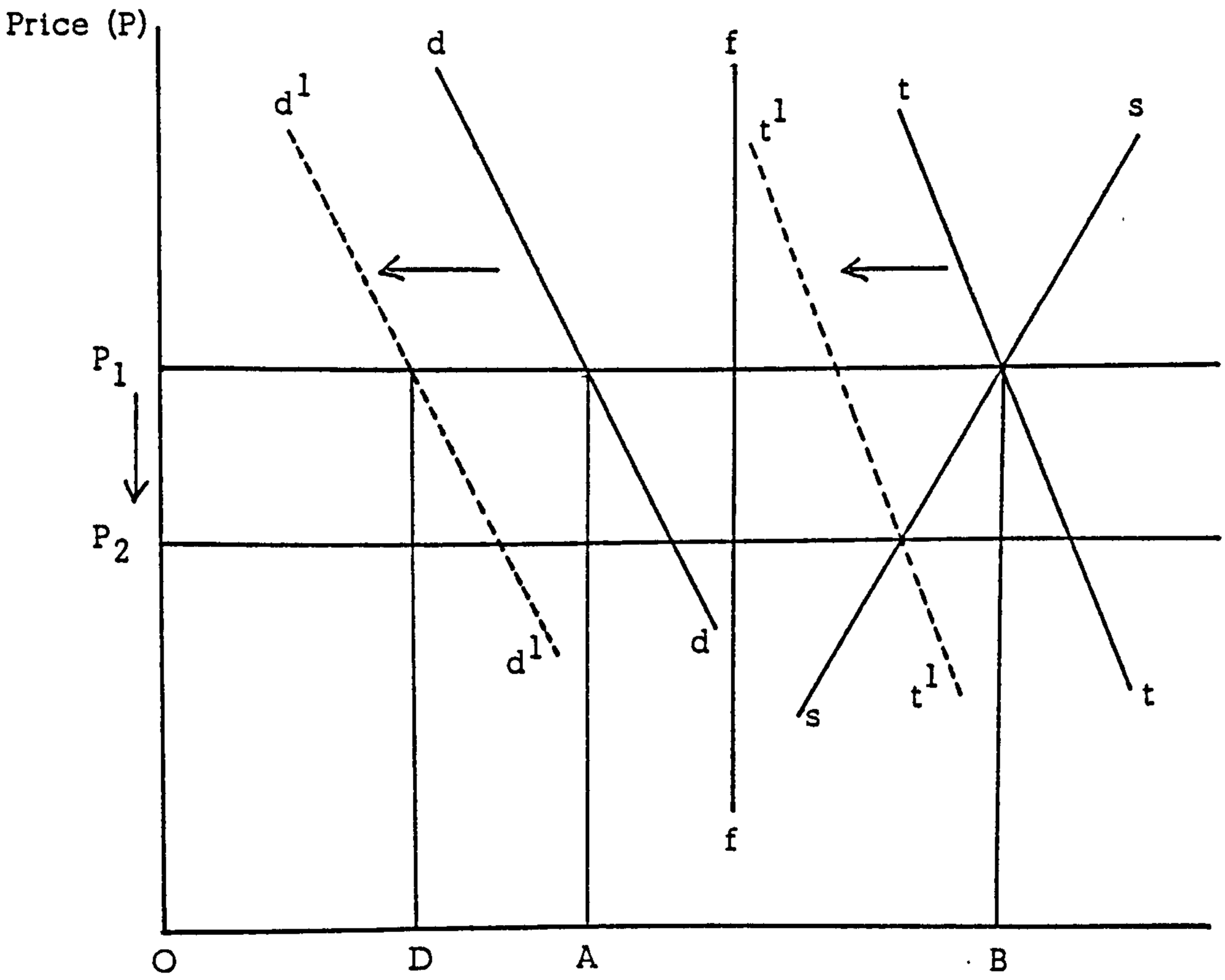


Diagram 6 : A Perfectly Inelastic Foreign Demand Curve for Exports.

Diagram 7 explains some of the further problems that may have to be taken into account on the supply side. The foreign demand curve P_1f_1 is perfectly elastic at the price OP_1. However, domestic suppliers would be unwilling to export at that price and can only survive under heavy protection. Even if the level of domestic savings was forced to rise by curtailing consumption, causing the domestic demand curve to shift from dd to d^1d^1, the volume of exports would not be increased and the economy could find itself moving back to the initial situation (dd), unless appropriate policies such as devaluation were pursued. In terms of domestic currency, devaluation would push the foreign demand curve to P_2f_2 and the new price level would stand at OP_2. Hence, part of the forced domestic savings could be transformed into foreign exchange. However, Bruton suggests that devaluation will not be sufficient to increase foreign exchange earning for a country with a very large traditional sector unless it is accompanied by a duty on traditional exports (or dual exchange rates). In terms of diagram 7, the given country would then be able to export AB and consume OA. In such a situation, the possibility of two distinct gaps entirely disappears. Bruton then concludes that

> "without devaluation and the export duty there can indeed be two gaps, but they exist not for structural reasons, but because of the inability or unwillingness to pursue a policy that would eliminate the distinction between the gaps." [14]

Bruton maintained his attack on the structural explanation of the two gaps on moderate neo-classical grounds:- (i) The presence of a capital goods sector - however small that may be - would enable the

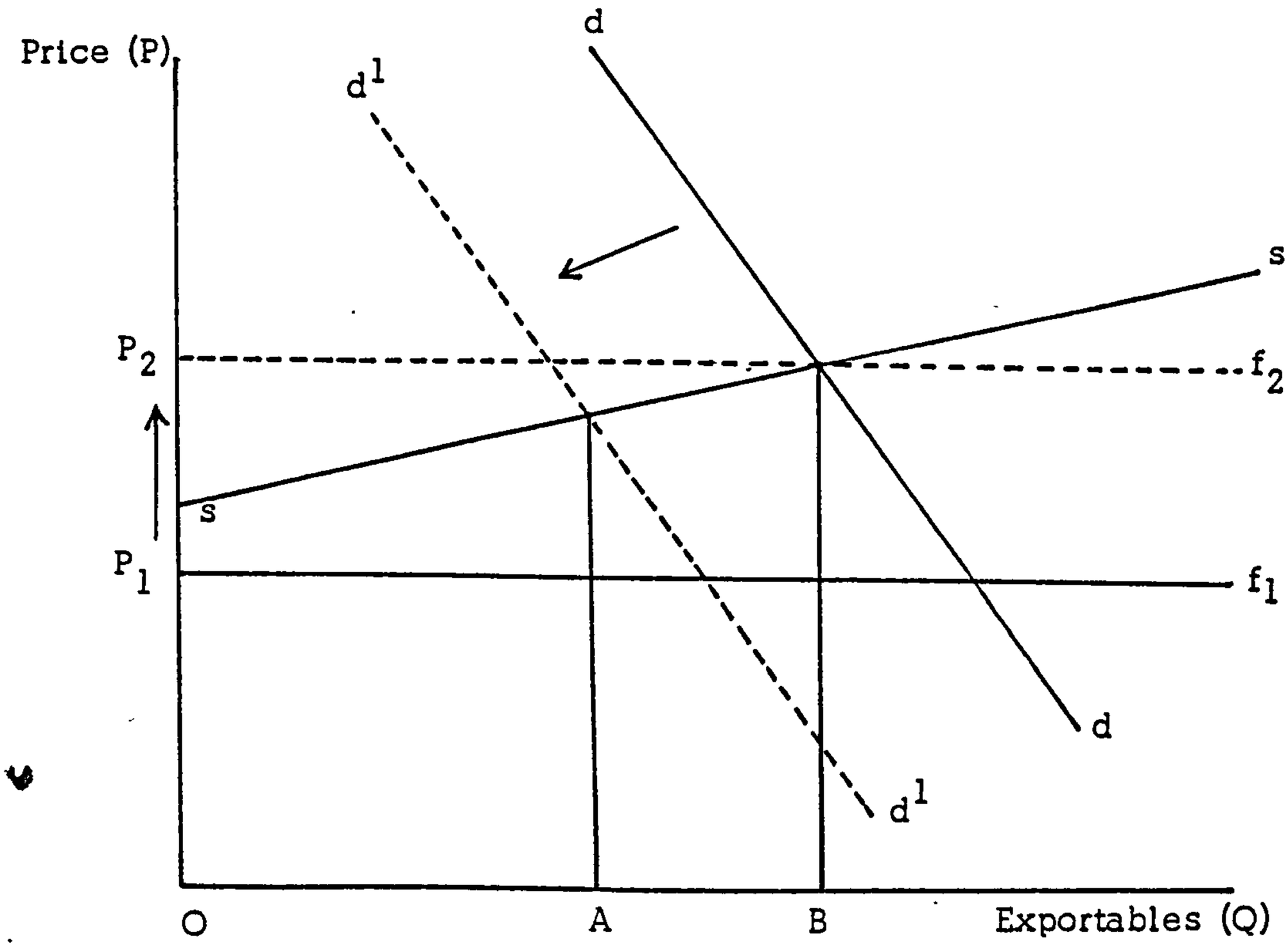


Diagram 7 : A Perfectly Elastic Foreign Demand Curve for the Exports of a Heavily Protected Supplier's Market.

economy to transform part of its domestic savings into foreign exchange without going through international trade. He referred to that sector in a broader sense of the term to include all those activities which have the effect of increasing the productive capacity of the economy. If after all the economy could not achieve its target growth rate, then it is certainly limited by a low level of domestic savings, that is, there is only one gap. (ii) There is scope for adaptability and flexibility of all productive inputs; a possibility that is generally disregarded by the proponents of the two-gap analysis. (iii) The essence of the structural explanation of development constraints implies the irrelevance of short-term policy measures. In other words, the gaps have not been the result of inappropriate economic policies in the past when long-term investment priorities were not fully observed, that

is, the lack of investment in capacity-raising activities. Ideally, "the allocation criterion must be gap-prevention rather than least disadvantaged or some other cost-based argument."[15] Foreign aid funds could be effectively used to dictate the appropriate allocation of resources. Economic policies built around the assumption of the inevitability of a trade gap as a legitimate outcome of the development process generally undermine the necessity to reverse certain existing policy measures in order to enhance the development efforts.

Writers such as Joshi[16] have discussed the two-gap analysis on almost similar lines to that of Bruton. According to Joshi, the domestic savings and the trade gap are mutually exclusive. In the context of a two commodity-producing economy (consumer goods which are exportables and investment goods which are importables), the saving constraint only dominates when the squeeze of consumer goods in favour of investment goods reaches its maximum possible level, that is, when domestic consumption reaches a minimum level. The trade-gap then dominates at a stage when it becomes impossible to transform domestic savings into foreign exchange through international trade.

There are certain specific criticisms that question some of the assumptions on which the two-gap approach projections are derived. For example, the model of Chenery and Strout maintained an assumption of rigid capital-output and import-output ratios throughout the transitional period to a self-sustained growth path. The analysis utilized an aggregate capital-output ratio for the whole economy. Since that is an average of the sectoral ratios which are determined in

accordance with the changing compsotion of investment and output in each sector, then, an aggregate ratio would carry the disadvantage of being limited in use.[17] Since the latter is expected to change as a result of the increasing size of investment over time, it would certainly differ from one phase to another and for different sectors during a given phase. Thirlwall related his arguments for the existence of two distinct gaps to the rigidities of the assumptions of the two-gap models claiming that "if the capital -output and import-output ratios are flexible there can only be one gap, not two,"[18] that is, savings. The whole approach may be criticized on the ground that it tackles the development issues at an aggregate rather than at a sectoral level.

Finally, the two-gap analysis does not explicitly incorporate the question of debt repayments. In other words, it does not refer to the possibility of a bottleneck arising because a given country has been over-indebted. That approach would, therefore, be taken to assume either that all foreign aid is in the form of unrequited transfers or that substantial proportion of it is concessional so that foreign indebtedness is not expected to cause difficulties. Even though if it might have been taken for granted that foreign transfers to developing countries could be available in sufficient quantities and concessional terms in the past for the benefit of development, this is doubtful at the present time. Perhaps, the proponents of the two-gap model were entirely thinking of external resource transfers that should not incur current obligations. "Some of the potential bottlenecks - skills, saving or foreign exchange - can be temporarily relaxed by adding external resources for which current payment is not required."[19] But, their long-term models also do not incorporate the repayment issue.

The possibility of a debt difficulty and its implications on the development progress of a developing economy will be examined in Part III with particular emphasis on the Sudan.

2.3. Summary and Evaluation

The remarkable post-war development experience of certain countries has inspired economists to draw general conclusions and to derive models in an attempt to assist developing countries to foresee their development prospects on similar lines. The ultimate goal has always been to ensure that the developing economies can achieve and maintain a self-sustained growth path. The level of co-operation between the advanced and developing countries is the cornerstone for any development breakthrough that is envisaged to take place in the latter. Broadly speaking, this co-operation manifests itself in the volume and terms of trade between the two categories of countries, and the amounts of foreign assistance which the developing countries acquire from their developed counterparts. The developed and the rich countries of the world are seen as assisting the developing countries by facilitating the transfer of resources and know-how on concessional terms up to the point where the latter can support an accelerated growth rate from their own resources.

These fundamental arguments form the main grounds for the two-gap approach to development. The derived models incorporate the striking development experiences of certain countries during the past few decades; take into account the relevant characteristics of the

developing countries and anticipate a level of co-operation between the developed and the developing countries to ensure a continuous flow of resources into the latter and to further trade. These development models emphasize the critical role of capital in augmenting development. They describe and analyse the different development phases which a developing economy normally follows in its drive towards a self-sustained growth path. These development phases are characterized by two main constraints; namely, domestic savings and foreign exchange. Apart from these constraints, a developing economy is also likely to face a skill-limit. The dominance of a saving constraint means that both public and private savings are insufficient to support a level of investment that is compatible with a given target growth rate. In general terms, this reflects the over-all state of the economy's resource-endowment and its dualism between traditional and modern activities. However, the acceleration in the growth of the modern sector will certainly increase the demand for current public spending and this should have implications on the level of future current budget surpluses.

At this phase of economic development, the size of foreign aid funds requirement necessary to enable the implementation of the appropriate investment programme would be determined by the size of the saving gap. But, in the absence of foreign aid, the target growth rate cannot be achieved and the obtainable growth rate will be dictated by the most binding constraint of the two which in this case is the level of domestic savings. Foreign funds would supplement domestic

savings and enable the economy to increase its potential capacity to generate an increasing level of savings. Therefore, the impact of foreign funds would be to accelerate the rate of mobilization of domestic resources into effective investment. The role of foreign funds in supplementing domestic savings would eventually diminish and the economy would enter a new phase characterized by shortages of foreign exchange.

The appearance of a distinct foreign exchange constraint on growth has been one of main controversial issues in relation to the two-gap analysis. The latter reflects the fact that international trade may not lead to full employment of resources in the developing countries mainly because of factor immobility and the fact that certain imports are required to achieve full utilization of domestic resources but their values exceed the obtainable export proceeds. However, the situation may be more difficult with respect to those developing countries whose main export items are primary products. The dominance of a foreign exchange constraint means that domestic resources are under-utilized in the sense that part of domestic savings is not effectively used;which aroused a great deal of concern among economists. This issue will be discussed later in this section.

The basis of the two-gap analysis specification of a foreign exchange limit on growth is the proposition that the given economy has not yet acquired a sufficient degree of structural flexibility which would enable the transformation of a part of the domestic savings (which are

in excess of that required for investment) into foreign exchange by export promotion and/or import substitution. Therefore, the gap between the available foreign exchange and that which would be required to import the necessary capital and other manufactured goods as well as material inputs would have to be filled by foreign funds if such an economy is to achieve its target growth rate. Otherwise, the economy would perform at a lower rate of growth than that could be obtainable and the latter would reflect the shortage of foreign exchange rather than be dictated by the domestic savings. But once the economy acquires the necessary degree of flexibility to transform sufficient proportions of domestic savings into foreign exchange, the role of foreign aid - which is assumed to be gradually declining during this period at a rate which depends on the speed of such process - should be substantially reduced.

The main question to ask is about the bases on which we can accept the propositions of the two-gap analysis with regard to the appearance of an independent trade gap that is distinct from a saving gap. The critics argue that such presentation of a distinct trade gap is of limited practical use because it implies that the developing countries have been pursuing the appropriate economic policies with regard to the external sectors of their economies. For example, Bruton is of the opinion that the determination of an independent trade gap would necessarily have to be considered after taking into account the elasticities of world demand for the particular country's exports and he suggests that economic policies such as devaluation and import-saving industrialization play a significant role in eliminating the possibility of its appearance.

Accordingly, the appearance of an independent trade gap during any period of time is often the result of inappropriate economic policies in the past and should not be always related to structural factors. This is the view taken earlier by Rosenstein-Rodan when he emphasizes that foreign aid would act to supplement domestic savings without explicitly referring to the possibility of a foreign exchange constraint dominance implying that the former is the usual limit to growth in the developing countries.

In general terms, the two-gap analysis treats all the developing countries in a similar manner implying that each individual country should necessarily pass through the described phases in one order or another before it reaches a state of self-sustained growth. This may not always be the case. A developing country may not necessarily face a distinct foreign exchange gap if it has consistently been pursuing appropriate economic policies by continuously ensuring that an adequate level of domestic savings is being transformed into foreign exchange through trade channels and efficient uses of domestic resources. To a large extent, this will depend on the elasticities of the supply of,and the demand for its exports. If the given country is a price-taker and its exports face a growing competition from other producers then it may be difficult to increase the volume and/or raise the price level of its exports unless the world market situation moves in its favour. This applies to countries which export primary products and manufactured goods alike. Even if the prospect for world demand improves, a given country may still be constrained by the inelasticity of supply of its

exportables and hence may not be in a position to benefit from that situation by increasing its foreign exchange proceeds. However, if we consider the situation of the different groups of developing countries, things may look different. It is conceivable that there are some developing countries which can actually increase their foreign exchange proceeds by benefiting from the existing world market situation such as those developing countries which produce vital commodities like oil, or else can exercise monoplistic practices in the world market. The possibility of a dominant trade-limit may also be remote for those countries which can expand their sales over other developing countries by improving quality, delivery ... etc. In contrast, other developing countries - particularly those least developed - may not acquire such capacities to raise their foreign exchange earnings and eventually find themselves caught up during their development process by a trade-limit. Therefore, we need to consider the practical uses of the two-gap analysis for each individual developing country in relation to its own economic situation and the present performance and future prospects of its export sector.

Even though the two-gap analysis is subject to a wide range of criticism, the critics appreciate its significant contribution to development literature in focusing on the limits to economic growth arising from the deficiency in domestic savings. The latter is the result of the poor state of the developing economies which are caught up in a vicious circle of poverty, because of the generally low per capita income, low levels of capital stock, low rates of capital

accumulation ... etc. Therefore, although the two-gap analysis might, in one way or another, be defective, the case to close the domestic savings gap still remains. This means that the case for foreign aid to fill this gap and to help in eliminating absolute poverty remains valid. The role of foreign aid should not in any case be weakened if it becomes evident that the possibility of a distinct foreign exchange limit is unlikely to take place.

In conclusion, the theme of the two-gap analysis is to describe the existing constraints that limit the capacity of developing economies to use their resources in an effective manner. It proposes that a continuous flow of foreign aid into these economies determined on the size of the most limiting factor should supplement their domestic resources and help to move them from their state of backwardness towards an accelerated and a self-sustained growth path. The critics maintained that such a phase-approach to development implies that each phase is inevitable and hence prolongs the time-horizon of foreign aid. Their main emphasis has always been on the effectiveness of domestic economic policies to eliminate the possibility of a trade-limit which, the critics argue, has been mistakenly explained by structural factors.

Notes and References

1. The term 'big push' is generally taken to indicate that a self-sustained growth process might not be achieved unless some minimum amounts of resources were to be devoted to the development programme which could enable the economy to jump over the multitude of constraints that hinder development. It is mainly based on the assumption that the existence of imperfect markets, and disequilibrium and indivisibilities in the production functions could make it extremely impossible for isolated and small efforts to add up and have a sufficient impact on growth. Therefore, a 'a big push' could only take effect as a result of substantial increases in social overhead capital and other development pre-requisites and these, in turn, would be expected to have an over-all positive impact on the development prospects by means of external economies. For further details see, Rosenstein-Rodan, P.N. (1943); Problems of Industrialization of Eastern and South-Eastern Europe, EJ, Vol. 53, pp.202-11, Partly reprinted in Meier, G.M. (1976); Leading Issues in Economic Development, 3rd ed., Oxford University Press, New York, pp.632-6. Also by the same Author: 'Notes on the Theory of the Big Push', Printed in Ellis, H.S. and Wallich, H.C. eds. (1961); Economic Development for Latin American, St. Martin's Press, New York, pp.57-73.

2. Rosenstein-Rodan, P.N. (1961); International Aid for Underdeveloped Countries, Reprinted in Bhagwati, J.N. and Eckaus, E.S. (1970); Foreign Aid, Penguin Modern Economics Readings, pp.81-108. Also, El Tigani, A.H. (1975); Foreign Capital and Economic Development of Less Developed Countries, NCR/ESRC, Bulletin No. 23,Khartoum, pp.3-6.

3. Rosenstein-Rodan, P.N. (1961); op.cit., p.81.

4. ibid. p.82.

5. El Tigani, A.H. (1975); op.cit., p.6. Some other points cited by the mentioned Author have benefited this review.

6. McKinnon, R.I. (1964); Foreign Exchange Constraints in Economic Development and Efficient Aid Allocation, EJ, Vol. 74, pp.388-409, Reprinted in Bhagwati, J. ed. (1969); International Trade, Penguin Modern Economics Readings, pp.370-98.

7. Chenery, H.B. and Strout, A.M. (1966); Foreign Assistance and Economic Development, AER, Vol. 56, pp.679-733.

8. McKinnon, R.I. (1964); op.cit., p.386.

9. The following review benefited from diverse sources on this subject and in particular, Cochrane, S.H. (1972); Structural Inflation and the Two-Gap Model of Economic Development, OEP, Vol. 24, pp.385-98.

10. Chenery, H.B. and Strout, A.M. (1966); op.cit., p.686.

11. ibid., p.689.

12. ibid., Footnote No. 24, p.690.

13. Bruton, H.J. (1969); The Two-Gap Approach to Aid and Development: Comment, AER, Vol. 59, pp.439-46.

14. ibid., p.442.

15. ibid., p.445.

16. Joshi, V. (1970); Saving and Foreign Exchange Constraints, Printed in Streeten, P. ed. (1970); Unfashionable Economics, Essays in the Honour of Lord Balogh, Weidenfeld and Nicolson, London, pp.111-33, See the extract reprinted in Meier, G.M. (1976); op.cit., pp.336-44 under the title 'The Two-Gap Analysis.'

17. Meier, G.M. (1976); op.cit., p.260.

18. Thirlwall, A.P. (1976); Financing Economic Development, Macmillan Studies in Economics, Macmillan Press Ltd., London, p.14.

19. Chenery, H.B. and Strout, A.M. (1966); op.cit., pp.680-1.

CHAPTER THREE

Absorptive Capacity of Developing Economies : A Critical Appraisal

The need for an effective use of resources in developing countries has been emphasized in the growing body of literature on development economics. It is widely acknowledged that the limit imposed on the developing economies by the present extent of their absorptive capacities is among the main elements that lead to an ineffective use of resources and hence to an unsatisfactory implementation of development programmes. The focus on the absorptive capacity constraint has sharpened as a result of the increasing inflow of resources from the advanced countries into the developing economies and a growing concern about is productivity and allocation. Therefore, it could be desirable that much of the investible resources in the initial stages of the development process should be directed towards broadening the base of the 'infant' economy. This involves the elimination of the different obstacles - both technical and institutional - that frustrate the subsequent developmental efforts.

However, despite the significance attached to the limits imposed on development by the capacity of the developing economies to absorb a large investment in an effective manner, the concept itself has not been given a well-defined operational meaning. This makes it difficult to measure the absorptive capacity of a given economy and thereby to

determine the appropriate size of investment which it can effectively undertake at any particular stage of development. The multiplicity of factors that affect (and are affected by) this concept are among the main reasons that resulted in the ambiguity that surrounds its definition. In addition, absorptive capacity differs between countries and among the different activities of the same economy so that a comparison in both cases may not be quite useful. However, there are aggregate indicators which might usefully indicate the extent of the absorptive capacity of an economy.

The capacity of an economy to absorb more capital investment than the present levels could be estimated by examining the pattern of aggregate indicators such as the general level of education in the country and the proportion of technical education; the present state of the economy and its performance over the past years; the experience of private entrepreneurs both domestic and foreign and the way they foresee the future prospects of the economy. It is evident that policy-makers would also need to acquire adequate qualitative knowledge about the extent of the economy's absorptive capacity and the appropriate methods to reduce its short-term adverse effects.

There have been various attempts to identify the broad boundaries of the absorptive capacity of the developing economies. One of the earliest is that of Rosenstein-Rodan. He contends that a country's absorptive capacity is limited at low levels of development and is likely to increase as a result of the development process itself. He asserts that it "relates to the ability to use capital productively."[1]

That is, its extent is reflected through the net rate of return on capital investment. This is an aggregate concept which should apply to the total investment programme rather than to be considered for each individual project. It may however differ from one activity to another depending on the availability of the complementary material and non-material inputs. But as the aggregate level, it generally refers to the non-existence of a combination of basic development pre-requisites.

The United Nation (1960) presented a broader version of absorptive capacity by explicitly relating it to the available physical and human resources in a given country. It depends

> "on natural resources, taxes, the labour supply, the level of labour, technical and managerial skills, entrepreneurial capacity, the efficiency of public administration, the extent of 'technology mindness' of the population, and so on. Such capacity sets a limit to the amount of efficient investment physically possible, and although it can itself be increased through further investment, it does effectively limit the rate of development possible, particularly in the short-run." [2]

A particularly interesting point in this interpretation of absorptive capacity is the emphasis on the negative impact of incompetent bureaucratic practices in handling matters related to the development programme, as for instance, the application of the Acts that are designed to provide concession for private investors and to encourage foreign participation.

In contrast, Adler (1965) attempts to determine the absorptive capacity of developing economies exclusively in terms of the relative rate of return on capital. He states that it should be viewed

> "as the amount of investment, or that rate of gross domestic investment expressed as a proportion of Gross National Product, that can be made at an acceptable rate of return, with the supply of co-operant factors considered as given." [3]

This version is open to different interpretations between domestic and foreign entrepreneurs and among the former themselves as to what can be viewed as 'an acceptable rate of return on investment.' In short, the ability to mobilize and transform higher levels of domestic resources than before into effective investment could be singled as one of the main indicators of the absorptive capacity of a developing economy.

However, Adler's version of the type of limits imposed on the developing economies because of their absorptive capacities is ultimately closer to that suggested by Chenery and Strout when they described phase I in the proposed three-phase thesis of the two-gap analysis.[4] The substance of these arguments is that absorptive capacity for additional investment would be limited due to the lack of sufficient complementary inputs. The binding constraint is broadly referred to as the 'skill-limit' which primarily reflects not only shortages of skilled labourers, managerial staff and entrepreurship, but also the inability of the economy to supply the required complementary inputs for the new development ventures. The latter could be illustrated in two ways: the absence of complementary inputs necessary for a successful completion of a given project and the failure to simultaneously develop a chain of interrelated projects. In the first case, a manufacturing industry may happen to be cut-off from its prime source of

material-inputs due to the lack of adequate transport facilities and this could be particularly aggravated during rainy seasons. The outcome would be low capital turnover because of existence of idle capacity leading to lower returns on capital investment. The second case relates to a situation of complementary industries or agro-allied processing establishments.

The above constraints tend to influence the decisions of private entrepreneurs in undertaking large capital investment in a particular country because the relative rate of return on capital could be higher in other countries. . However, different attitudes towards the viability of investment might exist among domestic and foreign entrepreneurs. On the one hand, local businessmen may come to conclusions that the net return on capital are well below what they generally regard as the 'minimum reasonable level' and hence they refrain from further investment under the prevailing circumstances. In contrast, foreign investors might foresee better future prospects as well as good present investment opportunities in that country for a number of reasons:- (i) The net returns on capital may be higher than those obtainable in their mother countries or in the other countries where their business activities extend. (ii) Foreign investors may value the future prospects of investment more than the short-term returns on capital as obtainable from the existing investment opportunities and also are likely to have more capital backing to run through a period of low returns. (iii) Foreign businessmen may be selective with regard to the available investment opportunities and so

could be assured of an adequate return on their undertakings. (iv) They may be able to overcome the short-term problems arising from the shortages of co-operant inputs by importation in contrast to domestic businessmen who may be subject to strict exchange control systems.

All the above factors may leave domestic investors at a disadvantageous position compared with their foreign counterparts, mainly arising from the inability of the economy to provide some basic pre-requisites necessary for a successful investment. This is applicable to all forms of development investment, and is particularly evident in the early stages of the development process in a typical developing country where mostly a large and an indivisible investment is vitally required. The limited capacity of private investors to undertake such ventures, due to their socio-economic nature or the lack of investible funds, leads us to argue in favour of a sizeable government involvement in investments that are mainly characterized by long gestation periods, have relatively low direct rates of return and are often producing services and intermediate inputs. The initial emphasis should be on the improvement of transport and communication links between the material-input sources, industrial locations and consumption markets as well as between the agricultural production areas, the domestic and international markets ... etc. Another example is the installation of hydro-electric power in all parts of the country particularly in areas where the development prospects are relatively better and where the power-operated technology can replace the old methods of production. These investments are essential to vitalize the economy. The government could acquire capital from foreign sources in the form of aid and borrowing. But that does not guarantee

success if the basic information on the structure and performance of the economy are either lacking or inadequate. The latter could be a prime barrier to the use of the available investment opportunities.

The demerits of the 'information gap' would be felt at both the aggregate and the sectoral levels. At aggregate levels, the present performance and future prospects of the economy are indicated by an analysis of cross-section and time-series data on variables such as the annual growth rate of GDP, per capita income, the behaviour of the saving function, the size of investment in relation to GDP, the gap between exports and imports, the changing composition of manpower ... etc. More importantly is the relevance of the past and present economic policies and their impact on each individual economic variable and the economy as a whole; in particular how they influenced the allocation of resources among the different activities. The latter is crucial in view of the competing claims on, and the need to make effective uses of the limited resources. On the other hand, the emphasis at sectoral levels should be on the growth rates of the different sectors and their relatives contributions to GDP. This information enables policy-makers to analyse the structure of these sectors and to set priorities among and within them to apply the appropriate measures which would result in changing the future structure of the economy as may be deemed desirable. The latter should demonstrate the inter-links between the different components of the development programme and reduce the probability of resource waste.

The availability of the information described above makes it possible to conduct feasibility studies to decide on the appropriate allocation of the development funds and eventually to fulfil the long-term projections which in this case are based on thorough knowledge about the economy. In other words, the provision of sound statistical data on the various aspects of the economy will certainly reduce the degrees of uncertainty that is associated with most developing countries particularly those newly independent ones because of a mixture of socio-economic and political problems.[5] All the mentioned elements would act simultaneously to increase the absorptive capacity of the developing economy. In addition, the establishment of sound financial institutions all over the country to mobilize domestic resources for development financing and the elimination of the various institutional constraints to development whether in the form of bureaucratic procedures or organizational controls both contribute to raise the level of the absorptive capacity of a developing country.

The estimates of the capacity of a developing economy to absorb a given size of capital investment is an important element in determining the size of foreign resources which could be effectively used. The significance of this arises from the fact that only part of the required external resources can be acquired in grant form. Therefore, the recipient country needs to meet debt service obligations in the short- and the long-run depending on the terms of borrowing.[6] Unless these resources are productively used, the recipient country could face debt difficulties with far-reaching implications on its development process itself.

The above analysis brings to the fore the practical benefits of co-ordination between different economic activities to reduce the flaws caused by the limitations of the absorptive capacity. These obstacles could be overcome by foreign assistance in the short-run. However, the economy's absorptive capacity would increase in the long-run partly as a result of consistent efforts to raise the human skills, to improve the statistical system and to provide basic infra-structure and partly as a result of the development process itself due to the leverage effects of accelerated development. However, it may prove difficult to broaden the scope of a developing economy through scattered developmental efforts, where the over-all outcome may be misallocation of resources and far less impact on the economy compared to what could be obtained mainly because of the limited leverage effects of such unco-ordinated efforts. The development momentum should not, in any case, over-shadow these important issues. The achievement of a 'big push' may not be possible in an economy with a severely limited absorptive capacity.

To sum up, the notion of limited absorptive capacity of developing countries reflects a multitude of simultaneous constraints on development. It is one of the main elements that tend to slow progress and frustrate the development strategies. By emphasizing the role of physical capital in economic development, we should not take for granted that all the other necessary conditions to achieve that objective are given. The absence of the latter conditions would eventually lead to an ineffective utilization of the available resources. To reduce the negative

impact of a limited absorptive capacity on the development process, the developing countries need to launch relatively 'huge' investment programmes in the early stage of their development drive. This may not be feasible in the absence of foreign aid particularly that in the form of technical assistance. Although the former may take a long time to be effective, its immediate merits in removing some institutional constraints should not be underestimated.[7]

Chapters 9 and 10 will adopt this conceptual framework to the Sudanese economy focusing on the constraints that arise from the skill-limit and from the institutional establishments which cater for the development programme and in particular aid-sponsored projects.

Notes and References

1. Rosenstein-Rodan, P.N. (1961); International Aid for Under-developed Countries, Reprinted in Bhagwati, J.N. and Eckaus, E.S. (1970); Foreign Aid, Penguin Modern Economics Readings, pp.82-5.

2. United Nations (1960); Programming Techniques for Economic Development, ECAFE, Reprinted in Meier, G.M. (1976); Leading Issues in Economic Development, 3rd ed., Oxford University Press, pp.252-5 under the title 'Capital Accumulation and Development', p.253 deals with absorptive capacity.

3. Adler, J.H. (1965); Absorptive Capacity: The Concept and Its Determinants, Brookings Staff Papers, The Brookings Institute, Washington D.C., p.5.

4. Chenery, H.B. and Strout, A.M. (1966); Foreign Assistance and Economic Development, AER, Vol. 56, pp.685-6.

5. The choice of an appropriate discounting rate to calculate the expected rate of return over the life-time of a certain project would reflect the degree of certainty about the future prospects of the economy as well as the present investment opportunities. Also, the over-all performance of the economy is an element which is taken into account.

6. Kalecki, M. (1976); Essays on Developing Economies, The Harvester Press Ltd., p.72.

7. Adler, J.H. (1965); op.cit., p.35.

CHAPTER FOUR

The Impact of Foreign Aid on the Recipient Countries' Domestic Savings

4.1. The Critics of Foreign Aid: Their Statistical Findings and Interpretations

Arguments that favour the extension of foreign aid to developing countries usually rest on the proposition that the process of economic development in these countries is likely to be constrained by shortages of domestic savings over the required level of investment or export proceeds over import needs. Foreign aid is seen as a means that could fill whichever of these gaps that may emerge during the development process. This represents the main theme of the two-gap approach to development which focuses on determining the limits to economic growth and suggests that these limits could be eased and eventually eliminated by an effective use of foreign aid as deemed sufficient depending on the size of the dominant gap.

It is argued by many economists that the size of foreign aid inflow would have the following sequence: initially, its size is required to be relatively large because of the often huge investment undertakings that are an essential pre-requisite for development, such as investment in basic infra-structure and in raising social capital per head. However, the size of required foreign aid would further increase as the economy's absorptive capacity increases. There would come a time when the

foreign aid requirement reaches a peak. Thereafter, the economy would be in a position to finance an increasing proportion of its capital investment requirement from domestic resources. Subsequently, the importance of foreign aid should gradually diminish until the economy reaches a point where concessionary development aid are no longer necessary. At this stage, foreign aid for developmental purposes would cease, but the economy can acquire foreign finance - if that proved to be necessary - through the usual commercial channels.

According to the above analysis, the crucial factor to the whole process of transforming the developing economies from the state of stagnation, subsistence and slow growth into ones that are dynamic and possess the potential of achieving and maintaining a satisfactory growth rate, is the success of policies designed to mobilize domestic savings for development finance. The two-gap analysis itself assumes that foreign aid funds would be efficiently used in accordance with the recipient country's own priorities. Foreign aid would support the recipient country in overcoming the initial difficulties of resource deficiencies at a time when its economy is still in a transitional period, thus making possible the achievement of the required level of savings to support a target growth rate in a shorter period than would otherwise be the case without it. On this view, foreign aid is expected to supplement rather than substitute domestic savings. The extent of this supplementation is the subject matter of this section.

The crucially important role assigned to foreign aid in augmenting domestic savings has aroused considerable concern among economists

who sought to establish quantitative evidence on the impact of foreign capital inflow on domestic savings in the developing countries. If such inquiries were able to establish positive relationships between the two variables, then it could be maintained that foreign aid (as one main component of foreign capital inflow into developing countries) is in fact effective and contributory to economic development. But if the statistics were to reveal negative correlation between both variables, then it could perhaps be argued that foreign aid is unproductive, adversely affects domestic savings and is a burden on the recipient countries' resources because it leads to some extent to debt accumulation and also delays some essential changes in the structure of these economies.

A start with the empirical analysis of this issue was made by Rahman (1968)[1] who used data provided by Chenery and Strout[2] for 31 developing countries on foreign capital inflow and domestic savings to estimate the following equation:-

$$\frac{S_t}{Y_t} = a + \frac{H_t}{Y_t}$$

where S_t, Y_t and H_t represent domestic savings, Gross National Product and foreign capital inflow respectively. $\frac{S_t}{Y_t}$ and $\frac{H_t}{Y_t}$ stand for the saving-income and the foreign capital-income ratios consecutively.

The above equation is derived from a general postulate that investment in developing countries is a function of total income which includes foreign capital inflow. The result of the regression analysis was:

$$\frac{S_t}{Y_t} = 0.1427 - 0.2473 \frac{H_t}{Y_t}$$

According to this equation, a unit increase in foreign capital inflow is associated with about .25 unit decline in domestic savings. Rahman, then, argued that this result could possibly be attributed to three factors:- (i) Because of the short-run shortages of investment opportunities as a direct result of the limited absorptive capacity of the developing economies, part of the foreign transfers would go into consumption. However, if it happened to be known to both the donor and the recipient countries that the possibilities of undertaking larger investment than before would be constrained by the present absorptive capacity, then (according to the author) foreign aid would be deliberately provided to ease the pressures on consumption rather than to augment investment. (ii) The dominance of ex-ante trade over ex-ante saving gap might result from the adoption of import-intensities whose choice might be influenced by the availability of foreign aid funds. It is suggested that the availability of foreign funds may deter the use of local resources for construction; instead imported materials are chosen if foreign exchange is not scarce.[3] (iii) The final possible factor is a behaviouristic or a psychological consideration relating to the attitudes of governments in poor and/or 'politically difficult' countries. Governments may in such circumstances, it is suggested, relax their efforts to mobilize domestic resources when more foreign aid is available than otherwise.

The latter interpretation was elaborately discussed by Griffin (1970) and formed the basis of his analysis on the relationship between foreign capital inflow and domestic savings. Griffin opened his

analysis by arguing that although there is good reason to assume some degree of inflexibility in the production systems of developing countries, the two-gap analysis has assumed an excessive degree.

> "One can accept the proposition that most underdeveloped countries do not have flexible economies ..., But the degree of inflexibility assumed in the two-gap analysis is surely excessive." [4]

This type of structural inflexibility is the main reason behind the appearance of a foreign exchange constraint. If it is accepted that there is some degree of flexibility in any economy, then the appearance of a trade gap larger than a saving gap would be the result of unwillingness rather than inability of developing countries to introduce policies which would increase foreign exchange revenues. This could be achieved by producing some capital goods, promoting exports and initiating foreign exchange-saving import-substitution industries. The foreign exchange problem would, then, be caused by unwillingness to reduce consumption in order to expand exports or reduce imports. Griffin then concludes on these grounds that ultimately there can only be one constraint on investment, namely, domestic savings, and he went on to claim that:-

> "Assuming the government wants to achieve its growth objective at the lowest possible cost in terms of reduced current consumption, it will substitute foreign capital for domestic savings to the fullest possible extent." [5]

But since considerable parts of aid are project-tied, how can a recipient country switch these funds from investment to consumption

or behave in the manner described? On this issue, Singer (1965) wrote,

> "provided that the country which receives aid has some additional money of its own ..., and provided that this additional money is not entirely absorbed in the project or projects selected by the aid donor and to which aid is tied, the project actually financed by aid may be quite different from the one to which aid is ostensibly tied." [6]

This means that although aid may be tied to a specific project which is economically sound and meets the particular donor's conditions, it may however be switched by the recipient country to finance a 'low priority' marginal project. This could take place only because the aid-financed projects rank high and would in any case have been undertaken in the absence of foreign aid by the use of domestic resources. This - according to Griffin - is a case of 'fungibility of aid funds' and could lead to the support of the marginal consumption expenditure rather than the marginal investment projects as was earlier cited by Singer.

The analysis may be illustrated diagrammatically. In diagram 8, (derived from Griffin) C_t and $C_t + _1$ represent the choice of a government or a community between present and future consumption in terms of indifference curves and a budget line. The slope of the indifference curve at any point reflects the government's or the community's time preference. The slope and position of the budget line b_1 b_1 are both determined by the amount of available resources and the rate of return on investment. In the initial stage, the equilibrium

is at E. If EG amount of foreign aid is made available, then the budget line would shift to b_2 b_2. Since consumption is not an inferior good, resources provided through foreign aid are expected to be allocated between consumption and investment in such a manner that "the opportunity cost of current consumption is exactly equal to the satisfaction obtained from consuming one additional item."[7] It is unlikely that consumption will remain constant and henceforth the new equilibrium will not be at E^1 (as was assumed in the two-gap analysis), but instead it would be at a point such as H, making C_t and C_{t+1} higher than their initial values. Therefore, a foreign capital inflow of EG leads to EF rise in current consumption which, in turn, is a fall in domestic savings. At this juncture, Gulati (1976) pointed that Griffin had, in fact, regarded any increase in consumption as a

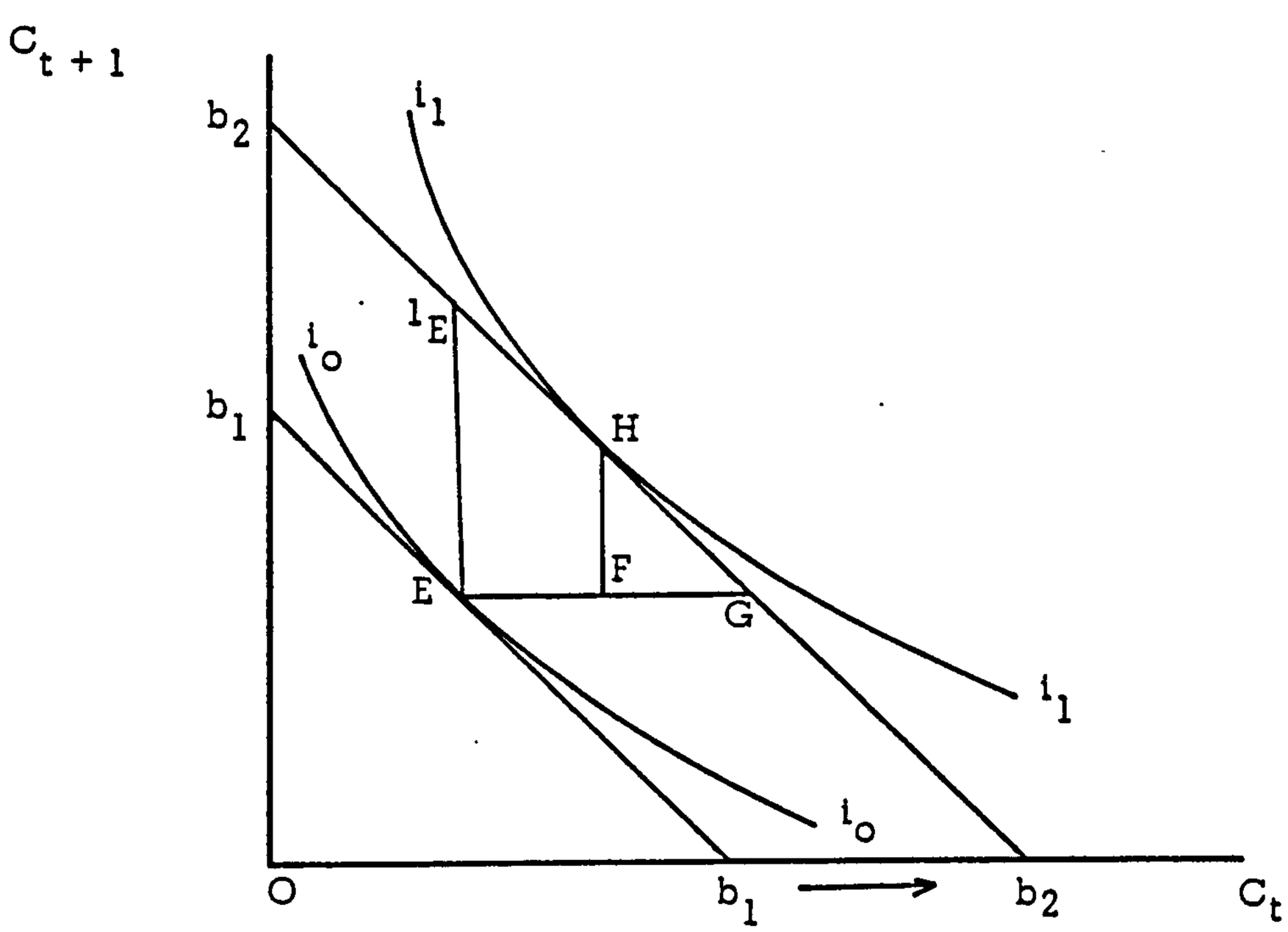


Diagram 8: The Effects of Foreign Capital Inflow on Domestic Savings.

subtraction from domestic savings. He rejected this contention, arguing that "so long as the increase in consumption is not more than a hundred percent of aid received, total savings will still be higher."[8] In terms of diagram 8, $\frac{EF}{EG}$ is the proportion of foreign capital consumed and $\frac{FG}{EG}$ is that proportion which supplements investment and would lead to an increase in future consumption of FH.

The over-all effect of foreign aid programmes on the growth rate of the recipient countries was considered with regard to the capital-output ratio. Griffin argued that foreign aid reduces the growth rate of recipient economies by causing an increase in the capital-output ratio because of the apparent practice of some donors of insisting on financing large projects of a prestige nature, concentrating funds on heavy infra-structure and on the increase of social over-head capital. This usually leads to a distortion of the investment pattern and to a rise in the overall capital-output ratio because of the increase in the relative size of the capital-intensive sector of the economy. But, apart from the possibility that foreign aid funds might be directed towards the financing of some prestige projects that are totally unproductive, and that the choice of techniques may be distorted, there seems to be nothing wrong in financing infra-structural projects and increasing the social over-head capital if the implications for future government current expenditures are borne in mind. Of course, judgement on these matters would mainly depend on the given community's welfare function.[9]

Griffin then concluded that foreign capital might reduce the potential growth rate of the economy depending on whether or not it would lower domestic savings and/or increase capital-output ratio. The extent of the adverse effects on these two variables may necessitate larger amounts of aid than before if a target growth rate is to be maintained. To support these arguments quantitatively, he regressed the percentage ratio of gross domestic savings to GDP $(\frac{S}{Y})$ on the percentage ratio of foreign savings to GDP $(\frac{A}{Y})$ for 32 developing countries using United Nations data for the years 1962-64. He obtained the following relationship:-

$$\frac{S}{Y} = 11.2 - 0.73 \frac{A}{Y} \quad R^2 = 0.54$$

This shows that foreign capital inflow and domestic savings are inversely related. Similar results were obtained when the same equation was estimated for Columbia (1950 - 63), that is,

$$\frac{S}{Y} = 21.5 - 0.84 \frac{A}{Y} \quad R^2 = 0.43$$

These statistical findings left Griffin in no doubt about the adverse effects of foreign aid on the recipient economies for reasons which will be discussed later. In the meantime, diagram 9 represents this statistical findings on the inverse relationship between foreign aid and domestic savings. $f_1 f_1$ is the investment frontier indicating the various combinations of domestic and foreign savings that could be used to achieve a given target rate of growth. $S_o S_o$ is the domestic saving function drawn in a way suggesting that domestic savings and foreign capital inflow are inversely associated.

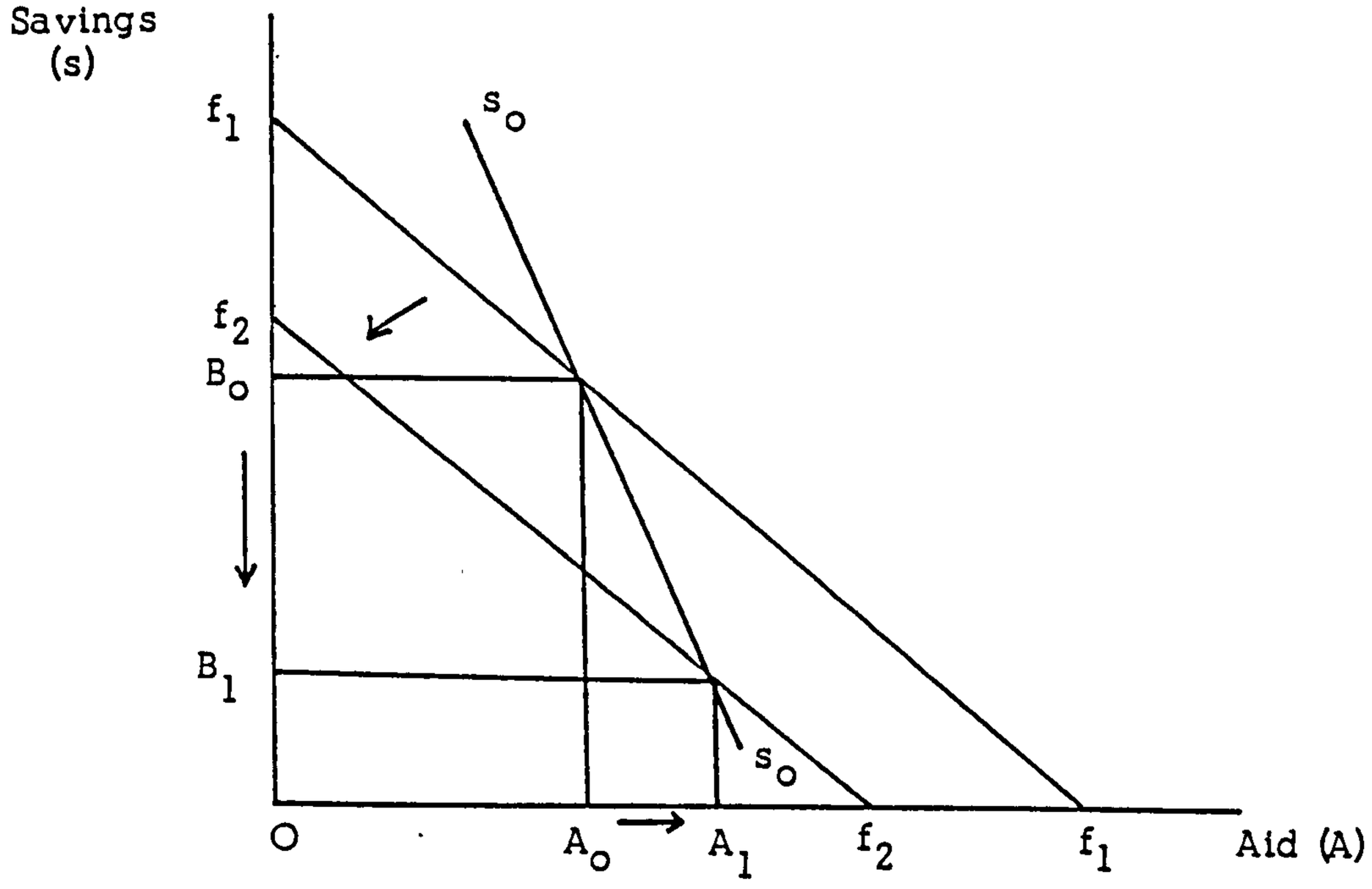


Diagram 9: The Inverse Relationship Between Domestic Savings and Foreign Aid Inflow

If the initial level of savings is B_o and the level of foreign aid is at A_o, then an increase of $A_o A_1$ would reduce the former by $B_o B_1$ and would shift $f_1 f_1$ to $f_2 f_2$. In such circumstances, if the initial level of foreign aid was at A_1, it would be necessary to reduce its size by $A_1 A_o$ so as to remove the negative resource gap. A reduction in the general level of foreign capital inflow, therefore, might lead to an increase in the domestic savings ratio. In addition, for reasons to be discussed later, it could also result in a decline in the incremental capital-output ratio. The cost of increased self-reliance would, then, be some reduction in the level of consumption rather than a slower rate of growth of the economy.[10]

However, in a paper published in 1970 by Griffin and Enos (one month earlier than that of Griffin), they presented similar statistical results but they concluded with a considerably less extreme view

admitting that:

> "the pattern of development is complex and the effect upon it of foreign assistance is still undetermined .... In general foreign aid has neither accelerated growth nor helped to foster democratic political regimes. ... the limited evidence available suggests that aid programmes, as currently administered and insofar as they are concerned with economic development, frequently are counter-productive." [11]

Griffin made no reference to these important considerations in his subsequent article examined earlier.

The above-mentioned work of Rahman, Griffin and Griffin and Enos was later criticized by Weissokopf[12] on two grounds:- (i) their failure to exclude those countries with net capital outflow because in such cases the causality would run from the domestic savings to the capital flow and not the other way round; (ii) their failure to differentiate between ex-ante and ex-post domestic savings, because foreign capital inflow would only contribute to the former. The identification of a behavioural savings function will depend on the dominance of this constraint for a given country during the time period under consideration.[13] He then derived a model that is based on the ex-ante (potential) behaviour of the domestic savings function rather than the ex-post (realized) accounting relationship. The estimation of his equation included only those developing countries where a domestic savings constraint was binding at the time. The behavioural function is of the following type:-

$$S^* = a + bY + cF + dE + u$$

where, S* is ex-ante savings defined as the gross domestic savings that would be potentially available for investment although not necessarily always realised. Y, F and E represent, in turn, GDP, net foreign capital inflow and exports of goods and services. 'a' is a constant and the parameters 'b', 'c' and 'd' stand for the marginal propensities to save out of Y, F and E. u is the stochastic term.

The estimation of the above function by methods of regression analysis using data for 17 developing countries for a period of at least seven years for each country (extending from the 1950's to 1966) produced the following relationship:

$$S = a + \underset{(t = 65.9)}{0.1837Y} - \underset{(t = -5.3)}{0.227F} + \underset{(t = 4.6)}{0.176E}$$

"According to this equation, the impact of F on S is highly significant and approximately 23 percent of net foreign capital inflow substitutes for domestic savings."[14] Weisskopf then argued that such inverse impact on domestic savings is only the result of the dominance of the domestic savings gap. It is likely to be positive when an economy faces an active foreign exchange constraint because foreign capital inflow would help to relieve the independent limitation on investment imposed by shortages of some specifically required imports.

However, Weisskopf seems to argue that similar (negative) coefficients would usually characterize the relationship between domestic savings and foreign capital inflow because of the more frequent dominance of the savings rather than the trade constraint. This implies that there is no general rule to shape the relationship between domestic savings

and foreign capital inflow, but instead such a relationship would be affected by the binding constraint at any particular time. In general, although Weisskopf's model has revealed similar results as those reviewed earlier, it has the merit of incorporating the contribution of the export sector to domestic savings, that is, the extra impact on the propensity to save that is attributable to the export sector.

In addition to the specific criticism of foreign aid programmes from the standpoints just considered, other arguments have been put forward proposing the suspension of aid programmes on rather different grounds. For example, Professor Bauer has consistently attacked aid programmes on the basis that they keep alive oppressive political regimes without benefiting the majority of the people in the recipient countries. He regards foreign aid as one of the main obstacles to development and argues that those who argue for the provision of aid usually misunderstand the concept of development itself. He contends that

> "the advocacy and operation of aid suggest clearly and often explicitly that material advance depends largely on external grants, rather than on the emergence of appropriate human qualities, attitudes, values and also the removal of institutional constraints." [15]

The impact of foreign aid would, then, be to expand the role of governments in the economy (although this may also take place in the absence of aid) and to lead to the establishment of superficial planning machineries to impress donors and it is "often linked to balance of payment deficits of the recipients, especially when these deficits are

considered as the result of laudable official efforts to speed up progress."[16] Generally speaking, such views are primarily based on casual, unsystematic observations on the performance of developing countries (perhaps only a few countries!). Also, they, to a large extent, fail to distinguish between different forms of aid and to appreciate the need for co-operation between the advanced and developing countries to overcome the problems of development in the latter leading to mutual benefits to both sides.

Most of the critics of foreign aid tend to substantiate their arguments by interpretations drawn from certain characteristics of developing countries. Much emphasis is placed on the recipient countries' alleged official attitudes towards domestic savings in the presence of foreign aid, such as that a recipient government may reduce taxation, make less effort to collect it or fail to adjust taxes in line with inflation rates. Also, the present expenditure pattern may be altered in favour of more consumption by increasing the size of public services, raising wages and salaries and introducing social security benefits. In addition to these plausible interpretations, Griffin[17] also referred to the effects of capital imports on local entrepreneurs in the recipient countries. If foreign capital is in aid form and the government uses part of it to provide incentives to indigenous businessmen in the form of soft credits and other facilities, the outcome may prove to be a reduced desire to save or to mobilize domestic savings for business expansion. Private foreign investment may also be competitive with local investors to an extent that the latter may find themselves at a

disadvantageous position because of their inadequate capital, low skills and less experience in management and marketing relative to their foreign competitors. Also in that connection, capital imports may stimulate the consumption of importables and of exportables. The consumption of importables may increase because the availability of imported goods become possible in the presence of extra foreign exchange. The impact on the exportables may come from the adoption or pursuance of inappropriate exchange rates that reduce the efforts devoted to export promotion and as a result, the domestic consumption of potential export goods is likely to increase. However, if the motives behind extending a part of foreign aid to developing countries are not 'purely economic', then recipients will certainly spend these funds on activities that are not directly related to economic development.[18]

These general criticisms of foreign aid programmes are mainly based on "the laxity in government efforts in less developed countries to introduce necessary institutional changes for greater accumulation and saving."[19] The result of the availability of an extra foreign exchange may be that

> "countries shuffle their domestic priorities in favour of the types of local cost expenditures that are complementary to foreign exchange-intensive public investment programmes."[20]

4.2. Replies to the Critics of Foreign Aid and Some Further Interpretations

The above statistical findings on the relationship between foreign

capital inflow and domestic savings in the developing countries and their interpretations have been subjected to a wide range of criticism on various grounds. The following analytical review will focus on the main content of these criticisms regarding the issues which were raised in the previous section and will present the counter-arguments.

The main criticism falls on the manner in which the negative relationship between foreign capital inflow and domestic savings is obtained and the assumptions that lie behind that. For example, Eshag[21] has critically examined Griffin's basic assumption that changes in consumption would not affect the level of production and so there is zero elasticity of resources supply in developing countries which implies that resources are fully utilized. But, if a given amount of foreign aid is spent on importing equipment, an effective use of some idle resources would, usually, become possible. In fact Eshag's criticism is based on the contention that there is under-utilization of resources in developing countries and that idle resource-use may be responsive to the availability of imported equipment financed by foreign aid. He presents a model utilizing the multiplier to show the impact of a given amount of foreign aid on domestic savings when the former has been spent on importing equipment; something that would not take place in the absence of aid. If $\Delta I = I_a + I_d$ where ΔI is the change in investment, I_a represents foreign aid funds that have been spent to import equipment and I_d represents the idle domestic resources that were subsequently put into use. The incremental increase in income (ΔY) will be:

$$\Delta Y = \frac{I_d + g}{s + t + m}$$

where 'g' stands for the rise in public expenditure. 's', 't' and 'm' represent marginal propensities to save, tax and import respectively. To leave the level of foreign exchange position of the recipient country unchanged, the total amount of foreign aid (A) will be equal to the total increase in the level of imports (ΔM). ΔM will be equal to $I_a + m.\Delta Y$ as a result of the multiple impact on Y. Private domestic savings will increase by s. ΔY and public savings by t. $\Delta Y - g$. Therefore, the total increase in aggregate savings (ΔS) will be equal to:

$$s.\Delta Y + t.\Delta Y - g$$

$$= \Delta Y (s + t) - g$$

which means that savings will not be reduced unless we have a situation where $g > (s + t)$ and "there is clearly no a priori reason to expect that this will invariably be the case."[22]

The main criticism of Griffin and others came from Papanek[23] who pointed out that the inference of causation between foreign aid and domestic savings as a result of the observed negative correlation between total foreign capital inflow and the latter does not seem appropriate and largely suffers from the problem of aggregation. Any model concerned with the long-term impact of foreign capital inflow on the growth rate of a given economy should necessarily establish the impact of each component of foreign capital separately. On these bases, he disaggregated foreign capital inflow into aid (A), private foreign investment (PFI) and others flows (R). He obtained the

following regression equation using cross-section data for 85 developing countries in the 1950's and 1960's:

$$g = \underset{(0.05)}{1.5} + \underset{(0.03)}{0.205S} + \underset{(0.06)}{0.39A} + \underset{(0.07)}{0.17PFI} + \underset{(0.09)}{0.19R}$$

$$R^2 = 0.37$$

One of the remarkable features of the above relationship is the direct impact of foreign aid on the growth rate as compared to that of domestic savings and private foreign investment. This could be partly explained by the dual-gap role performed by foreign aid. However, domestic savings and foreign capital inflow do not usually explain all the growth rate of the economy. There are other factors such as natural and human resources, capital stock and the overall management of the economy which should also have appreciable impacts on the growth rate. In another study, Papanek obtained a negative correlation coefficient between foreign aid and domestic savings, but since this was not significant between the latter and the other components of capital inflow, he doubted the notion that domestic savings would negatively respond to the size of total foreign inflow. He relied on this point to cast doubt on the usefulness of the analyses "... which combine all foreign resource flows and then draw conclusions for aid ...".[24]

The conclusions which can justifiably be drawn from the different statistical findings should clearly reflect, among other things, the state of the given economy at the particular time. In cases where foreign capital inflow is associated with low savings, this should not imply causality between both variables. Also, savings in the developing

countries may be a function of some exogenous factors that might lead to high levels of capital inflow, low saving levels and low growth rates or vice versa. These factors reduce the level of domestic savings and may raise the size of foreign aid programmes if the strict criterion of extending more aid to the needy and crisis-ridden countries was observed. Wars, political disturbances and riots, bad climatic conditions, catastrophes and deterioration in the country's terms of trade may be associated with a high level of foreign resources inflow because they reduce the level of domestic savings. Some importance may be attached to historical, political and cultural factors with regard to the behavioural pattern of savings. To substantiate these arguments, Papanek[25] found that for 11 low-saver developing countries in the 1950's and 1960's (those saving 9 percent of their GDP or less), the average gross saving ratio was 5.1 percent of GDP and the average net foreign aid was 5.6 percent of GDP. By contrast, and during the same period; 15 high-saver developing countries (those saving 18 percent of their GDP or more) had an average gross saving ratio of 24 percent of GDP associated with 0.4 percent of GDP in net foreign aid receipts. This clearly indicates that high levels of foreign aid were in fact associated with relatively low levels of domestic savings and vice versa. Hence, any statistical evidence that seeks to determine the shape of the relationship between domestic savings and foreign capital inflow would only be suggestive rather than conclusive because the developing economies are bound to be influenced by various non-economic factors that cannot be counted for quantitatively in the aggregate models.

Some criticism was also directed to the methodologies which were used to derive the values of different variables. Both Papanek and Newlyn[26] held the view that the negative statistical relationship between domestic savings and foreign capital inflow could be the result of an accounting convention and not of a behavioural relationship. The accounting convention means that all the additions to consumption from foreign resources will be shown as a reduction in domestic savings. National savings (S_n) is usually defined in the following manner:-

$$S_n \equiv Y + CT - C \equiv I - (F_c + F_i)$$

where; CT represents net current foreign transfers. F_c and F_i are the proportions of F that are used for consumption and investment, respectively. F is defined as the current deficit on the balance of payment.

In such a manner, S_n would be reduced by any increase in C that is financed by foreign aid. In other words, if F_c increases, then a fall in the level of S_n is inevitable. The reason for the accompanying fall in S_n is attributed to the accounting procedures that define savings as disposable income minus consumption. On the whole,

> "this representation of consumption expenditure out of extra revenue sources as dissaving is entirely justified in accounting terms, but it does not reflect clearly the behaviour which is being examined in an examination of the effect of capital inflow on the use of domestic resources."[27]

The behavioural equation must take into account the total resources and

the dependent variable should be total savings defined as total resources minus consumption. Total savings (S_t) will include the components saved out of income and foreign finance.

$$S_t = a + b(Y) + c(CT) + dF$$

The appropriate identity would then, be:

$$Y + CT + F = C + I$$

and the national resources being used for investment (R_i) would be:

$$R_i = Y + CT - (C - F) = I - F_i$$

According to Newlyn (1977), the use of a saving variable obtained from accounting procedures is not appropriate for a behavioural analysis of resource-use in an economy that receives foreign resources, and would give misleading results. In that case, the negative values of the coefficients of F (between O and -1) which result from the regression of S_n on F and at the same time show a reduction in the total national savings would "mean there is no change in behaviour with regard to the amounts of national resources being used for investment (R_i), but simply reflect the extent to which foreign resources are being used for consumption (F_c). Only if the negative value exceeds unity is there any reduction in the amount of national resources being used for investment ..."[28]

There is, therefore, a need to distinguish between the different types of foreign capital in accordance with source and end-use. A

developing country may receive aid for consumption purposes such as food and emergency-relief programmes or military assistance. Also, foreign aid may be acquired to support public expenditures by providing more resources for education, health and social institutions such as British 'Budget Support Aid' programme. In such cases, consumption would be desirable or in itself is regarded as a productive activity. If all these and similar consumption items were regarded as dis-saving, then to obtain a negative type of relationship between domestic savings and capital imports should not be a sufficient condition to reject the latter.

In some instances, misunderstanding would arise because of identifying the deficit on the current account with long-term capital inflow in such a manner which implies that all this deficit is necessarily to be financed by foreign capital. Deficits are usually financed from many sources which include reserves, short-term capital movement and long-term capital. If capital inflows are to be identified with the current account deficits, then it would of course be shown that an increased capital inflow causes domestic savings to decline. This implies that an increase in the current account deficit causes domestic savings to decline; something that does not seem to be an appropriate proposition.[29]

In further criticisms, the increase in the capital-output ratio suggested by Griffin as a result of foreign capital inflow and the subsequent unfavourable impact on the growth rate of the economy was flatly rejected by Thirlwall on the basis that the two-gap analysis only

refers to the over-all ratio in the economy and not to specific public projects ratios.[30] Foreign capital can decrease the capital-output ratio even though it has been used to finance capital-intensive projects if they have considerable external effects. However, the impact of foreign-financed activities on the aggregate capital-output ratio depends on the amount of foreign investment in relation to the total size of the investment programme.

Furthermore, the impact on domestic savings may depend on the factors that influence such an act of thrift.[31] If saving is a function of government efforts to raise public savings then the availability of foreign capital may result in changes in government's attitudes in that connection and so one domestic saving would decline. In the case of private savings, the competition between foreign and domestic entrepreneurs may enable the former to invest in the most profitable activities leaving the latter to contract and so private domestic savings may decline as a result. However, this is unlikely because investment opportunities can generally be regarded as inexhaustible especially in the developing countries where there may be abundant unutilized resources.[32]

In contrast, foreign capital inflow may, in fact, raise the level of domestic savings if the given economy faces a foreign exchange constraint. In that case, investment should increase as a direct result of the importation of essential capital goods that complement domestic factors of production and which only become possible due to the availability of foreign capital. This was discussed during the

analyses of the foreign exchange constraint of the two-gap approach. Also, savings may rise if they depend on the growth rate of income of a particular group known to have higher marginal propensity to save than others.[33] Foreign capital inflow will increase domestic savings if it raises the income level of this particular group. Of course, this may not be always true in the case of foreign aid if it was purposefully extended for social and rural development and not for the relatively developed sectors of the economy. A third factor in this connection may be the commitment by the recipient countries' governments to finance the whole or part of the domestic currency counterpart of the foreign-exchange-financed projects by aid funds, where the former may, in fact, intensify their efforts to mobilize domestic resources and with the initial investment taking place, the multiplier effect might act to raise future domestic savings.

In conclusion, the statistical findings that showed negative relationship between domestic savings and foreign capital must be viewed with some reserve. We cannot justifiably conclude that these findings necessarily infer a causal relationship between both variables. But the analysis is suggestive and it raises important issues in relation to the contribution of foreign aid to the developing economies. Inefficiency-uses of aid funds may exist in recipient countries and the concerned governments should certainly reconsider the whole question of these funds' channels in order to eliminate resource waste. There is a need to consider the particular situation of individual recipient countries separately and the different factors that influence their growth

courses. The issue will then be to search for the most effective means to stimulate the economy by accelerating its growth rate and to raise the standard of living of the whole population by an equitable distribution of income. To ensure a sustained rate of growth, the country should be capable of providing alternative methods or sources of development financing if one or more of these proved ineffective or have a retarding impact on the development process. These considerations are forwarded by Stewart when he suggests that the

> "interesting questions here are the conditions in the economies and policies of the recipient countries and in the type and quality of foreign aid given, that make for successful use of aid as compared with those associated with 'failure'".[34]

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PART II

A CASE STUDY OF THE SUDAN

CHAPTER FIVE

Some Aspects of the Sudanese Economy

5.1. Introduction

The Sudanese economy - like many other developing economies - is characterized by the co-existence of both traditional and modern means of production. This is particularly noticeable in the case of agriculture which assumes a leading part in the income-support of the population, but it is also found in other sectors. However, by no means all production in the traditional sector is necessarily of a subsistence character. Gum Arabic which is produced by traditional methods of production is an exportable commodity. Other examples include milk and fruits which are marketable commodities produced in the traditional sector. Moreover, certain subsistence crops are produced within the modern agricultural sector. For example, tenants in the Gezira Scheme - which produces the main cash crop in the country - are allowed to grow some staple food crops for their own consumption and fodder crops to feed their livestock outside the official rotation system. The distinction between modern and traditional sectors is mainly based on differences in the adopted methods of production[1] and the degree of monetization.

Economic activities other than agriculture are by no means homogeneous either. The manufacturing sector is also composed of modern and traditional production practices. A similar dichotomy

prevails in the other components of the National Income such as transport, communication and energy. In some parts of the country, the latter is produced from domestic sources such as dung,[2] woods and leaves of trees.

The Sudanese economy may be designated as mixed. The state participates in the commercial economy by its direct involvement in agricultural and industrial activities. The state is also heavily involved directly in the provision of basic infra-structures in transport, communications and other necessary services. Apart from this, the state also influences the allocation of resources in the private sector indirectly by directives and by various concessions and intervenes to influence the location of industry with the object of encouraging industrial location outside Khartoum or major urban centres.[3]

There are sharp differences between urban and rural areas in job-opportunities, wages, social services and other basic requirements which cause problems in many spheres. One of the most important of these is the magnitude of rural-urban migration and its repercussions on both of these areas. This trend has led to the creation of an urban informal sector whose size is influenced by the capacity of the formal industrial sector to provide job opportunities.

The following selective analysis is not intended to present an account of all aspects of the Sudanese economy, but only to examine certain issues that have direct relevance to the developmental path and future prospects of the country. The discussion is more particularly

focussed on those aspects which throw light on the issues involved in development finance.

5.2. Urban-Rural Distribution of the Population and Its Implications

Statistics on the Sudan divide the population between urban and semi-urban on one hand and rural population on the other hand. Such statistics must be treated with caution because of the arbitrary nature of such divisions. Figures in table 5.1. shows that the bulk of the population live in rural areas and that the size of urban and semi-urban population tends to increase as a result of population growth and at the expense of rural areas through migration. This led to rapid growth of the size of major cities such as Khartoum. The marginal decline in the size of rural population can be attributed to many factors: First, the growing demand for seasonal labourers in the production areas of large methanized agricultural schemes such as El Gezira and El Gadarif. Second, the mobility for better-paid jobs in the modern industrial sector. Third, the desire to get certain services such as education and health which are relatively better found in urban areas.

A large proportion of population in rural areas depends on traditional farming practices for living. Social services in health, education and recreational facilities are poor. There is a relatively high illiteracy rate among this group of people. However, if we compare the over-all situation of the Sudan with other developing countries, it appears that the level of literacy in the Sudan is lower than

in most other developing countries as table 5.3. indicates. Standard figures reveal that literacy rates had increased among the African population in a relatively short period, but Africa still remains the worst continent in this connection. Table 5.2. indicates that the average rates of literacy for 1965-70 were 26 and 53 percent for Africa and Asia respectively while that for Latin America was 76 percent. This compares with a world literacy rate average for the same period of 66 percent. It was reported in the same source that the average rate for Africa was 19 percent in 1960. Policy in the Sudan emphasizes the importance of illiteracy eradication for the benefit of socio-economic development in general and rural development in particular. Accordingly, the 6-year Plan (1977/78-1982/83) set a target to reduce its levels to, say, 30 percent by the year 1990 from the present level of 80 percent. Measures taken to achieve this objective include the opening of primary schools in almost every part of the country, the provision of more funds for the existing illiteracy eradication programme and the use of mass communications media.

The significance of rural-urban distribution of the population and the magnitude of illiteracy is the direct impact both have on framing the development strategy of the country. Since a large proportion of the population is relatively poor and the per capita income is low, there is need for capital investment to reduce rural-urban disparities, to ensure an adequate level of regional balance and to pursue comprehensive studies to uncover the untapped natural resources in different parts of the country.

5.3. The Co-existence of Traditional and Modern Modes of Production, and the Dominance of the Agricultural Production

The National Income of the Sudan is principally generated by two sectors; namely, agriculture and services, which together account for more than two-thirds of GDP. This is illustrated in table 5.4. for the period from 1969/70 to 1977/78; where the contribution of the agricultural sector was seen to be almost 40 percent of GDP at market prices and that of the services sector was about 35 percent. The industrial sector's contribution was less than 10 percent of GDP throughout the above-mentioned period. The dominance of the agricultural sector was even more evident when we examined the composition of exports and the type of industrial development, which was almost entirely agriculture-based. The construction sector's contribution was 4 percent on average during this period. Though small, it has a vital role in enabling the country to generate the physical equipment required to carry out its development strategy.

Table 5.5. indicates that the modern part of the agricultural sector was producing just over 55 percent of that sector's contribution to GDP. This came mainly from the state-owned Gezira Scheme and other mechanized projects in east and west of the country. However, it must be borne in mind that data on the size of the traditonal sector are only 'official guess-estimates' because of the difficulties that are incurred in collecting reliable information on a sector that is largely unmonetized. These difficulties probably lead to under-estimation of the contribution of the traditional activities to the National Income.

But despite their limitations, such estimates indicate the patterns and the trends of output in the traditional sector.

In the industrial sector, by contrast, a higher proportion of output originates from modern activities, as is revealed in table 5.6. The modern industrial sub-sector's contribution to GDP has regularly been at a level well above 70 percent of the total share of that sector. Moreover, the relative contribution of the traditional sector has shown a tendency to decline over the past years. This can be attributed to various factors; such as, the spread of knowledge about the modern techniques of production coupled with accessible loan facilities from the different financial institutions and in particular the Industrial Bank of Sudan (which was established in 1961 and started its lending operations in 1962). The prime function of the Industrial Bank of Sudan is the provision of loans to private industrialists for financing new industrial establishments and for modernization and improvement of existing ones.[4] The ability of the Bank to undertake this function has been helped considerably by foreign assistance, for instance, it acquired a loan to the amount of £S.4m. from IDA in 1973 and also two loans - from the Kuwait Fund for Arab Economic Development (1.5m. K.D.) and West Germany (5m.D.M.) - during 1975.[5]

The 1960's saw the establishment of a number of state-owned industries whose material inputs originated from agricultural and related activities; such as textiles, sugar, dairy products and meat canning. The state was involved in industrial investment mainly because of the relatively larger scale of the projects; their prime dependence on raw-

materials originating from agriculture where in certain cases, such as sugar, correspondent plantation was required; and perhaps the 'reluctance' of private businessmen to invest in industry compared to that in commercial activities and agriculture. Another reason for the state's involvement in industrial development was perhaps the capacity of the former to provide the required capital through foreign loans and borrowing in contrast to indigenous entrepreneurs.

Modern agricultural production is undertaken both by the state and the private sector. Table 5.7. shows that more than half of crop production in the Sudan in, say, 1974/75 was attributed to the private sector. The state's contribution comes from the mechanized schemes in the Gezira, the Managil Extension and in the White Nile. The size of the state-owned agricultural production can be expected to grow in relation to total output in the light of the growing state involvement in large scale mechanized agricultural development projects. However, the state regularly assists private farmers as well. Particularly important in this context was the establishment of the Agricultural Bank in 1959 in order to assist private cultivators and agricultural co-operatives to promote and to improve their agricultural production and other related activities. It supports private farmers by extending loans for land preparation, irrigation, fertilizers, pesticides, harvesting, storage, transport and marketing.[6] The Agricultural Bank activities are normally confined to medium and short term lending due to the limited capital resources at its possession. Its initial authorized capital was £S.5 m. but by the end of 1976 it stood at £S.15 m. and during the same

year it was for the first time granted a West German loan of 5 m. D.M.[7] used to support its credit facilities.

The dominance of the agricultural sector in the Sudanese economy is reflected in the composition of the country's exports which consist mainly of cotton, cotton-seeds, sesame, gum Arabic, groundnuts and hides and skins. Table 5.8. shows the main items that made up the exports of the Sudan during the period from 1970 to 1977. On average, cotton alone represented more than half of the total visible export proceeds. Cotton also contributed to exports through its by-products such as oil-cake and meal. All other export items however are either produced in the agricultural sector or originate from agriculture-related activities. The bulk of exports is in the form of primary unprocessed products. A process of export diversification seems to be desirable so as to avoid instability and vulnerability of export proceeds which results from heavy dependent upon a limited range of primary products. Such a process, with the ultimate aim of reducing the relatively high dependence on cotton, is gradually taking place in the Sudan. This is evident from the rising percentage contribution of items such as groundnuts although this crop itself is subject to annual output fluctuations that generally characterize agricultural production. The same analysis applies to export items included under 'others' which are increasing their relative share in total export proceeds due to recent access to export, to Arab countries, products such as meat and vegetables.

5.4.1. The Agricultural Sector

The importance of agriculture in the economic life of the Sudan

is demonstrated in many ways. Above all, it offers employment to almost 80 percent of the economically active population in the country. Table 5.9. compares the employment opportunities which the agricultural sector provides in the Sudan with similar figures for the World and the African Continent. It is evident that while the ratio of economically-active population engaged in agriculture is higher in Africa (about 70 percent) than in the World (about 50 percent), that for the Sudan is one of the highest. The table also shows a general tendency for the proportion of economically-active population engaged in agriculture to decline over time.

The development prospects of agriculture in the Sudan are generally supposed to lie mainly in the expansion of mechanized farming in both rain-fed and irrigated land. The Sudan is well-endowed with fertile land as can be seen from table 5.10. Arable land is just over 3 percent of the total land area of the country. 38.5 percent of the Sudan is covered with forests and woodlands; while 10.1 percent is regarded as permanent pasture. The size of potentially rich but yet to be tapped land is large in relation to total land area. 'Other land' which is put to uses not mentioned in the categorization such as roads ... also includes deserts and constitutes nearly half of the land area of the country. As the table indicates, the irrigated areas constituted 15.5 and 20.1 percent of arable land in 1961-65 and 1975 respectively. The rate of land utilization is, therefore, on the increase as the last row of the table indicates.

Public plans for agricultural development in the Sudan are generally based on bringing large acreages of unutilized land under cultivation by means of modern irrigation systems where that is appropriate such as El Rahad and Kenana projects. At the same time, the government intends to assist private farming modernization by the introduction of new methods of production and by bringing together small lots of land under agricultural co-operatives.[8] These measures remain an essential ingredient for the success of the agricultural development programme.

5.4.2. Agricultural Development: Which Way?

In view of the potential of the Sudan in agriculture and related activities, its future progress will largely depend on the degree of success on this front. This view has gained wide acceptance within and outside the country.[9] The three Development Plans which the Sudan had since Independence all emphasized the intention to make agriculture the leading sector of the economy. Development of certain other supporting activities, such as, infra-structure and education is expected to help to achieve a 'green revolution' in agriculture on whose success the major part of industrial development is seen as depending.

The first Development Plan (1961/62-1970/71) itself emphasized the role of agricultural development. In it, a heavy emphasis was placed upon the establishment of large scale irrigation and mechanized agricultural projects. The strategy emphasized the need for state-managed projects similar to the pioneering Gezira Scheme but also provided for land for private cultivation at nominal rents. The state was to provide

private farmers with extensive credit facilities and technical help through the Mechanized Farming Corporation. This broad approach was adopted in order to facilitate foreign participation at all levels. Action in that direction during the first Plan period resulted in the completion of certain large mechanized projects such as the Magagil extension of the Gezira Scheme and sugar production in El Girba where irrigation became possible due to the building of a dam on River Atbara.

The emphasis on large-scale mechanized projects was maintained during both following Development Plans. This strategy was regarded by the state as the most appropriate means of achieving rapid economic growth. It involved a horizontal expansion by bringing more land under mechanized farming either by irrigation system or by rain-feeding in areas where climatic conditions were favourable. In terms of regions, central and eastern parts were particularly suitable for irrigated farming because of the many river tributaries that flow across these regions. In contrast, the south and southern parts of western Sudan were seen as areas where rain-fed dry farming was feasible. In addition to the expansion of cultivated land, vertical integration was sought in the existing schemes on the banks of the Nile particularly in the north where state-owned pumping schemes are operating. The pumping schemes of the northern Sudan had been operating at relatively low productivities because of the transport problem which manifested itself in fuel shortages, inadequate supplies of fertilizers, an insufficiency or complete lack of insecticide inputs and above all, the efficiency was probably partly lowered by the bureaucratic administration of these

schemes. However, productivity should rise if these constraints are removed, marketing facilities are improved and better seeds are provided.

The agricultural development strategy broadly aims at diversification of output primarily to break the long-standing dependence on a limited range of products for exports. This could be better achieved by introducing new cash crops such as sugar, wheat and fruits. Animal husbandry did not receive appropriate attention in the past. Its output could be significantly increased by improving the breed, adequate feed and improvement of marketing facilities by shortening the channels of distribution from the home areas to urban consumption centres and foreign markets.

The discussion so far has referred to the modern parts of the agricultural sector on which, given present known resources, the future prosperity of the country certainly hinges. Nevertheless, it should not be forgotten that the traditional part of the agricultural sector generates more than 45 percent of the total agricultural sector's contribution to GDP and even modest improvement in its productivity, because of its relatively large size, could generate substantial potential savings. Any attempt to influence the productivity of the traditional sector its outcome necessarily would have a direct impact on rural ways of life. Policies designed to modernize and improve the traditional methods of production must be formulated as an integral part of a comprehensive rural development strategy for the country.

Despite the potential saving, agricultural production in the traditional sector has received little government support in comparison with the modern sector.[10] According to an ILO mission[11] however, the traditional sector, which is mainly composed of rain-fed farming and live-stock-raising, is capable of producing much higher returns for modest outlays and its expansion is more promising in terms of equity. In addition, the development of the traditional sector would involve smaller foreign exchange outlays than would be required for developing mechanized farming because the latter is relatively more capital-intensive than the former and requires the importation of the appropriate technology. Above all, the development of traditional agriculture can have, unlike mechanized agriculture, an important contribution towards redressing regional inequalities. A policy of opening the doors for labourers from rural areas to become permanent tenants in newly-developed modern projects might fall short of achieving the objective of creating employment opportunities because of the proportionately limited numbers that could be absorbed by such projects. At the same time, the leverage effects of large mechanized projects may fall below anticipation and hence no greater impact on rural population may take place. For these reasons, the traditional sector should not be disregarded in favour of mechanized farming.

The ILO mission presented a development strategy for the western part of the Sudan as an indication of the importance of striking the appropriate balance between the development of the traditional sector and the establishment of a modern mechanized base.[12] Resources in the west and south are not sufficiently utilized because of the

traditional ways of life that necessitate nomadic movement in search for pasture and water. In some areas over-grazing might take place leading to a decline in the quality of herds and things could get worse if this was coupled with over-stocking. Nomadic ways of life certainly create difficulties for the government in its attempts to provide social and other services on a permanent basis.

The present 6-year Plan projection for economic development (1977/78-1982/83) is based on a substantial increase in the size of irrigated land and the establishment of corresponding agro-allied industries in the relatively better resource-endowed areas of the country. The ultimate goal of achieving self-sufficiency in food-stuffs and then creating export surpluses could only be achieved during the time-span of the Plan if the strategy is successfully implemented and viable projects are completed in the envisaged periods. The target is to increase the growth rate of the economy to 7.5 percent per annum and at the same time achieve other national goals like the creation of job opportunities, the improvement of the standard of living of the population and an over-all emphasis on rural development as an integral part of the success of developmental efforts.[13] The level of feasible investment that would be undertaken in each region is to depend on its resource-endowments. However, it is recognized that policies to reduce regional disparities and to achieve some degree of specialization among the various parts of the country are of great importance. This could be partly achieved by the provision of basic infra-structure on a country-wide basis particularly transport and communication facilities and hydro-electric power.

In a country with relatively low levels of savings and hence an inability - at the present time - to mobilize sufficient domestic resources for financing large-scale capital-intensive irrigated agricultural projects like those envisaged in the present 6-year Plan and embodied in the 'Basic Programme for Agricultural Development', foreign capital and foreign technical assistance must play a decisive role in the final outcome. The Sudanese authorities have decided to encourage foreign participation in financing and implementing all sectors of the development programme, including agriculture, industry, transport, services and regional development. Foreign participation may not, however, take place unless economically sound projects can be generated. This is particularly important for attracting private foreign capital.

5.5.1. The Structure of the Industrial Sector

The importance of industrial development stems from its hoped-for effects on the balance of payments through import saving and export promotion, as well as opportunities it is likely to offer. Until very recently, the industrial sector in the Sudan has been very small in relation to other sectors of the economy. Mainly it was composed of soap, perfumeries, textiles, edible oils and other food-processing factories, all of which were private undertakings. Its contribution to the National Income was negligible until the 1960's when the first Development Plan was enacted. The Plan's industrial strategy was designed to establish a broad base for industrial development with the effective assistance of foreign capital and especially foreign aid and at the same time to encourage the private sector to increase its investments in industries.

In accordance with the Plan, various food-processing and textile industries were established under the ownership of the state. The distribution of these industries among the various regions of the country was largely dictated by the availability of material inputs but to a limited extent reflected the need to alleviate the great regional imbalances that exist in the Sudan. After a decade of public industrial development, many difficulties became apparent, and by the 1970's it was clear that each newly established factory was facing at least one major bottleneck that had hindered it from producing at reasonably acceptable levels. One factory - namely, Aroma cardboard factory in Kasala Province, eastern Sudan - was forced to close down after proving to be a total failure; incurring heavy financial losses and running at very low capacity.[14] There were certain difficulties common to all state industries which were established during the 1960's, but this factory also faced additional problems of its own.

Some of the most common problems that underlay these industrial difficulties have been put as follows:-

> "it is quite striking to note that no known scientific criteria for the selection of those projects were followed, and appraisal studies to determine their socio-economic, technical and commercial feasibility were either improperly done or were totally absent. At the same time, no attempts were made at the co-ordinated planning of the different processes of this new experience, or at least to assertain the availability of plan for the adequate flows of raw-material supplies and other inputs." [15]

Also, these factories had suffered from deficiencies in many other areas that were of significant importance to their success, for instance,

technical and managerial skills. Managerial training was either inadequate or lacking and job evaluation was often neglected which resulted in assigning senior technical and management posts to people on criteria other than competence.

With respect to economic criteria, things were not any better. The location of the factories was chosen with the ultimate intention of utilizing locally-available material-inputs in agriculture and related activities in the different parts of the country. The establishment of Babanousa milk factory in western Sudan was an indication of this pattern. This factory was established for processing the milk that was produced in that area by nomads. But by their nature, nomads normally move from one area to another in search for pasture and water. They do not stay permanently around Babanousa where the factory was built. For such an industry to succeed, it would need to adjust to the pattern of its material-input supplies. Nothing was done in this direction and the milk factory had been operating at an even lower capacity than the cardboard factory as can be seen from table 5.11. Seven of the eight enumerated factories were operating at far less than half of their installed capacities. Only El Girba sugar factory appears to have utilized its installed capacity to a reasonable degree (over 80 percent). The other sugar factory at El Guneid, was running at a loss that totalled about 60 percent of the invested capital during the eight years of its operation (that is, 1962 to 1969/70).[16] With the only exception of the Babanousa milk factory and El Girba sugar factory, all the factories were also running at varying degrees of losses since their inception and

up to 1969.[17] Therefore, by the beginning of the 1970's, after a decade of industrial experience, the industrial picture presented by the public sector was gloomy.

Rasheed[18] has discussed the various difficulties that surrounded Aroma cardboard factory and inevitably led to its permanent closure. He argued that cotton stalks were proved to be the wrong type of raw materials. He also asserted that even if cotton stalks were appropriate, then the factory would have better been established in the Gezira area where it could be assured of adequate input supplies. The factory also faced difficulties when the Gash Board (a corporate body independent from the cardboard factory) decided to shift from growing cotton to castor, thus depriving it from raw material supplies. Of course, this could have been a favourable development if the technical and the other difficulties were removed. Above all, the quality of cardboard which this factory produced was quite bad and no real demand for this product was, in fact, evident. The cardboard factory was a case of extreme failure, but it left behind lessons to be learnt in the country's attempts to achieve an adequate and a satisfactory level of industrial progress.

For the other factories which - despite their low levels of production - were maintained, attempts were then made to raise their productivity either by re-organization or by introduction of new lines of production that could use other material inputs that were available in the specific area. An example was the Babanousa milk factory which introduced new lines of production to process 'Karkadi' and gum Arabic. Another example of improved utilization was El Guneid sugar factory

which benefited from the rise in the international price of sugar. But before that, the unit cost of production in this factory was well above the selling price.

However, the economic situation of the state-owned factories was much better in 1973/74 than it was in 1969. Table 5.11 also shows an encouraging improvement in capacity utilization although certain factories were still operating at capacities far below that which was originally installed. These included Wau fruit and vegetables canning factory in the southern part of the country which significantly lacked sufficient material inputs. However, despite the improvements that might have taken place, there were noticeable annual fluctuations in capacity utilization which were probably largely attributable to fluctuations in the supply of the agricultural inputs.

The relative success of the sugar industry had led policy-makers to forward plans for more sugar production and processing. Two of the planned new sugar plantation schemes and factories were situated in the southern part of the country. However, the largest and most celebrated sugar scheme is located at the Kenana. It is based on a large scale mechanized agricultural project and is jointly financed by the British company, Lonrho, various Arab Development Funds and the Sudanese government. By the end of the present 6-year Plan in 1982/83, the Sudan is expected to be at least self-sufficient in sugar, if not a marginal exporter. Domestic production of sugar constituted less than half of domestic consumption during the period 1973/74-1976/77 and was subject to annual fluctuations due to the previously mentioned

difficulties that faced the sugar industry although the new factory at north-west of Sennar had come into operation in 1976/77 with total output of more than 26,000 tons.[19]

Finally, one vital piece of information on the distribution of industrial activities between public and private ownership is presented in table 5.12. The 1970/71 Industrial Survey showed that 59 percent of the amounts of capital that had been invested in the industrial sector was from public funds, whereas only 56 out of 209 industrial establishments were under state control. This reflected the relatively large size of the state industries compared with private undertakings. The Industrial Survey also provided information on the types of the state's industries. The public sector invested four-fifths of total capital investment in food-processing industries, nine-tenths of that invested in quarrying industries, two-thirds of paper, paper products and printing industries' total investment and two-fifths of the total investment in textiles.[20] However, the private and the public sectors provided roughly equal job opportunities.

5.5.2. Some Observations on the Present Industrial Development Strategy

In spite of considerable efforts by the state during the 1960's to establish an effective industrial basis for future development, the outcome was generally less than satisfactory. State industrialization policy which commenced with the first development plan had many flaws. These resulted in the total closure of one factory and others operating at such low capacities that they had possibly reached a point where they

could be regarded as not economically viable. This was very disquieting at a time when the country was seeking further industrial development in quite similar patterns. The drawbacks of the state industries were, generally, the result of insufficient or lack of feasibility studies that had led to an inappropriate allocation of certain factories, shortages of managerial personnel and skilled manpower, inadequacy of material inputs that were subject to annual fluctuations and seasonalities and finally, an insufficient or complete lack of complementary industries that were deemed necessary for their success, for instance, packing materials.

In addition to its direct involvement in the industrial development, the state recognized the importance of private sector's participation. This was clearly evident from the various Acts that were designed to encourage domestic and foreign private investment in the development activities of the country by offering favourable treatments. These Acts were designed in an attempt to encourage private participation and to influence the location of development projects particularly of industries because of the adverse effects of an industrial concentration in the major urban centres such as Khartoum.

The Promotion and Encouragement of Industrial Investment Act (1972) provided concessions in custom duties for imported machineries and spare-parts and also offered the new industrial establishments an exemption from business profits tax and other local duties for periods of time depending on the size of the particular establishment.[21] This Act did not discriminate between domestic and foreign private capital

and provided government guarantees against nationalization, in which contingency full compensation would be paid. Foreign firms were to be allowed to transfer their original capital in addition to any realized profits during their terms of operation. The spirit of all the successive Acts (1956, 1967) was the restoration of confidence among the business communities about the prospects of investment in the Sudan.

The 1972 Act was also repealed in 1974 and replaced by "The Development and Encouragement of Industrial Investment Act, 1974".[22] The new Act maintained the previous concessions and exemptions and provided for the establishment of 'the Advisory Committee for Industrial Development' whose membership includes representatives from the different economic activities and to be chaired by the Minister of Industry and Mining. The Committee's role was to scrutinize the applications for concessional treatment under the provisions of the mentioned Act.

The Industrial sector cannot be adequately, if at all, examined in isolation from the over-all state of the economy and the availability of the complementary inputs and the necessary developmental pre-requisites. The inefficiency and the limited capacity of the transport system added to the difficulties that faced the industrial sector in general and the state-owned industries in particular. The problem of transport may effectively continue to hinder future industrial development.

An important characteristic of the state-owned industries is that many depend on material inputs that originate from the traditional part of the agricultural sector such as Karima and Wau canning and Babanousa

milk factories. These factories were established on the basis that the estimated domestic supply of the given materials exceeds effective demand. In addition, the production patterns in these areas were expected to adjust to the growing material requirement of industry but no policies were introduced to ensure that this should be the case. Once a given crop found a guaranteed market, this was expected to provide incentives for farmers to increase their production. But the traditional part of the agricultural sector is stagnating and has low productivity relative to the modern sector. Production also experienced unforeseeable annual fluctuations caused by climatic conditions ... etc. The seasonality of production means that sufficient material input supplies may not be available evenly during the whole year unless a storage system is developed to maintain regular supplies.

Another question is 'whether the choice of the size of the factories was actually related to the availability of material inputs'. A large factory that will remain idle for long periods because of the shortage of material input supplies will certainly incur an operating cost which is considerably large in relation to its final output proceeds. This will be the case even though the working force is largely seasonal, because managers and skilled labourers will have to be employed on a permanent basis if the given establishment intends to raise the skills of its working force partly by the process of 'learning by doing' and secular training.

The above remarks on the progress of the industrial sector lead to questions such as the choice of the appropriate technology and the

economic size of the different establishments. The public sector in the Sudan has generally been associated with relatively large industrial establishments perhaps on grounds that despite their importance and leverage effects, private investors proved reluctant to enter these areas most probably because of the relatively large initial capital that is necessary and the lack of past experience in such fields. In addition to this, certain industries (such as sugar) are associated with large agricultural development projects that are undertaken by the state perhaps because of the capacity of the state to involve international donors and foreign investors in their financing. However, since the production of primary raw-materials is dispersed over a wide area of land, factories of smaller sizes may prove more appropriate than larger ones because this will, at least, save the costs of transporting bulky raw materials from distant areas. In that situation, a number of small factories in various parts of the specific area can be established and will result in an even more leverage effects on a wider section of the rural population.

5.6. Budgetary Revenues and Expenditures

This section is intended to present a brief note on the revenue and expenditure of the public sector and their functional classification. Table 5.13. shows that the revenue and expenditure sides of the budget were subject to annual fluctuations with 1974/75 recording the highest annual increase on both sides for the period 1969/70-1976/77. The average annual growth rate of both revenue and expenditure during the specified period was 15.1 and 14.1 percent respectively, indicating

that increases in public revenues were almost matched by a corresponding increase in public expenditures. The last column of the table shows the balance between revenue and expenditure. This surplus constitutes the 'public savings' that would be devoted to development financing. All these years, the budget showed an annual surplus which itself was rising during the last three years averaging at about £S.30 million. However, the average for the whole period amounted to £S.18.5 million. The ordinary budget surplus amounted to 7.9 and 8.6 percent of the average revenue and expenditure and amounted to 1.5 percent of the average GDP for this eight-year period.

On the revenue side, there had been heavy reliance on taxation as table 5.14 indicates. A salient feature of this period is the decline in the share of non-tax sources in the total revenue. Non-tax sources revenue comes mainly from the government monopoly of sugar, government and semi-government corporations and other commercial activities. Tax-revenue amounted to an average of 67.1 percent of total government revenue during 1969/70-1976/77. Comparing the Sudan with countries in Africa during 1973, we notice that it is among the countries with the highest tax-revenue ratios as can be seen from table 5.15.[23]

Table 5.16. shows that the annual receipts from taxation was growing at an average annual rate of 18.8 percent and averaged £S.25.9 million in current values. On the other hand, non-tax sources' contribution to total revenue was increasing at an annual average rate of 10.7 percent and was £S.8.3 million in current values (average for 1970/71-1976/77). Non-tax revenue was decreasing at the beginning

of this period because of the fluctuation in the Gezira Board's contribution from cotton proceeds and also because other corporations were incurring financial losses and were in fact drawing on central government subsidies. However, the relative increase in the proportionate share of non-tax revenue during the last few years can only be attributed to the then improvements in the financial positions of these corporations, and to the broadening of non-tax revenue sources' base due to the completion of some development projects in agriculture and industry. However, taxation remained the major contributor to government current revenue.

Taxation revenue mainly comes from indirect taxes which include import, export, consumption and excise duties, royalties and exchange taxes. Import duty was the highest revenue-yielding tax followed by excise duties on domestically produced consumer goods; chief among these were sugar, edible-oil, sweets, wheat flour and textiles. Direct taxes include business profits, personal income, capital gains and stamp duties. Business profit tax was the highest revenue-yielding among this group.[24] The existence of largely subsistence traditional sector added to the factors that made the size of direct taxes revenue smaller in comparison with indirect taxes and the total current government revenue. Also, the difficulties incurred in a genuine assessment of private businesses (because of inadequate record keeping and the acts of evasion and avoidence that may exist) reduced the amounts of revenue which could be obtained from business profit tax.

Table 5.17. reveals that more than four-fifths of tax revenue were in the form of indirect taxation and that constituted more than half of total government revenue. Direct taxes constituted about 16 percent of tax revenue and just over 10 percent of total government revenue (see table 5.18). The dependence on taxes as the main source of government revenue and in particular the reliance on indirect taxes is not peculiar in the case of the Sudan but is characteristic of the majority of developing countries.[25]

On the expenditure side, table 5.19. reveals that loans' service repayments for domestic and foreign sources amounted to an average of 10 percent, an item whose share was relatively low at the beginning of this period (see appendix 3) but grew rapidly as the period progressed. Expenditure on social services,which was composed of education, health and housing, appeared to be relatively low for a country with large rural population, high illiteracy rates and generally low standards of health care. But local government funds were partly spent on economic and social services and this meant that their overall relative share was actually larger than that in the table (which only reflects the direct central government expenditure on these activities). The largest single item of government expenditures was defence and security amounting to about one-quarter of the total central government allocation.

5.7. The Successive Development Plans and their Projections of the Sources of Development Finance

After Independence in 1956,[26] the Sudan resorted to foreign aid as a means to fill the gaps arising from the deficiency of domestic savings

and of the available foreign exchange. However, it was not until the drafting of the first development plan (1961/62-1970/71) that a definite role was assigned to foreign capital and in particular to international aid.[27] This Plan came into existence at a time when the economy was in a growing need of basic investment in agriculture, industry, transport ... etc. as a necessary foundation for further development.

The projection of the possible contribution of domestic resources in that Plan was over-estimated which led the planners to envisage a modest role for external resources (particularly foreign aid) compared with other developing countries at roughly similar stages of development.[28] About a quarter of the total gross fixed investment was to come from foreign resources and more than three-quarters of this amount was planned to be in the form of loans and grants on the public account. The first plan period witnessed - for the first time in the history of the country - the emergence of state-owned modern agro-based industries in vegetable processing (Karima and Wau), meat canning (Kosti), onion dehydration (Kasala), milk factory (Babanousa), cardboard factory (Aroma), hides and skins tannery (Khartoum) and two sugar factories in Khashm El Girba and El Guneid. Also, there were significant amounts of capital investment in transport, by extending the railway line further to the west and the south of the country, building new bridges (one to link Khartoum North and Omdurman 'Shambat bridge') and linking Khartoum and Wadi Medani with a highway.

With the overthrow of the military regime in 1964, the 10-year Plan - having completed half of its life-time - was interrupted by the

then frequently changing governments and the escalation of the unrest in the South. However, out of the total capital investment of £S.138.1 million during the second half of the Plan (1965/66-1969/70), foreign loans accounted for £S.72.2 million or 52.3 percent of the total investment. 35.6 percent was borrowed from the banking system by means of deficit financing and the remaining 12.1 percent was the contribution of domestic savings.[29]

The second development plan (the 5-year Plan 1970/71-1974/75) was based on an enlarged public sector ownership, implemented in part by the nationalization and the confiscation of some private business that took place in 1970. The Plan envisaged to finance 47.5 percent of the total capital investment from foreign loans (table 5.20). It emphasized that the role of foreign capital should 'considerably' decline in importance by/the end of the Plan period. So, the percentage share of foreign capital was to be 51.9 percent at the beginning of Plan implementation but to decline to 43.2 percent by the end of the Plan period in 1974/75. The actual performance of the economy during this Plan revealed that only 32.1 percent of the total investment was funded from foreign sources and the remaining 67.9 percent was financed by deficit financing.[30] Resort to deficit financing was completely ruled out in the initial projection because of its apparent adverse effects on the economy. Nevertheless, during the Plan implementation, it became essential to resort to deficit financing. Two factors, in my view, were behind this policy reversal:- (i) the limited ability of the public sector to mobilize more domestic savings for development financing, and (ii) the fall in the

size of foreign capital inflow below what was originally anticipated.

The second plan (5-year Plan 1970/71-1974/75) was eventually extended to cover two more years until the present 6-year Plan (1977/78-1982/83) was adopted to provide phase I of an eighteen-year comprehensive programme for social and economic development. Like its predecessor, the current plan assigned a significant role to foreign resources. Out of a total public sector investment of £S.1570 million; an amount of £S.835 million was planned to come from foreign sources. This constitutes 52 percent of the planned public sector investment during the whole Plan period. For the private sector, it was also planned that 50 percent of its investment during the same period would come from foreign sources.[31]

There seems to be a great need for sizeable foreign exchange revenues if economic and social development is to be maintained. The performance of the export sector is, of course, crucial to a foreign exchange demanding development strategy. Table 5.21. shows that the percentage share of total receipts from the export of goods and services in GDP remained in the range of 10.5 to 15.9 percent during the period 1966-77 and was subject to noticeable annual fluctuations. The main factor behind such fluctuations was the contribution of cotton to tangible exports which fell from 61.1 percent in 1971 to 35.5 and 46.0 percent in 1974 and 1975 respectively.[32] With the apparent deterioration in terms of trade that were reflected in low foreign exchange proceeds, the Sudan sought an increasing amount of foreign capital to be able to meet the rising costs of imports and obtain the capital goods that

were necessary for the development programme. As a result, a sharp increase in foreign aid inflow was reported during 1974. The percentage of gross receipts of foreign capital to GDP rose sharply to 9.1 percent during that year in contrast to only 2.5 percent in 1973 (table 5.22). This sizeable increase in the receipt of foreign capital was partly associated with the balance of payments deficit and the liquidity crises. Substantial amounts of this capital was in the form of cash loans from various bi-lateral donors, OPEC oil facilities and the IMF.

Table 5.22. shows that the ratio of gross receipts of foreign capital to GDP remained modest with an average of 3.3 percent for the period 1966-77 in relation to the development potential of the Sudan. Certain non-economic factors may have acted simultaneously to influence the level of foreign capital inflow into the Sudan. The country faced the problem of the Southern region before independence and by the mid-1960 it dominated the Sudanese politics until an agreement was finally reached in 1972.[33] During that period, aid provision for development projects in the South could only be made on a limited basis. Also aid from the major bi-lateral donors was frequently interrupted. For example, the US aid programme to the Sudan was halted in 1967 following the Six Days War in the Middle East. A further reason for the reduced proportions of foreign aid funds for developmental purposes might be the foreign exchange crisis of the 1972-77 period. This inevitably led the Sudan to seek more cash loans from bi-lateral donors and to resort to IMF loans in an attempt to maintain internal and external balances in the economy. The above period also witnessed an increasing reliance on

oil facilities' funds set up by OPEC member countries to assist the developing economies whose economies are seriously affected by the consecutive rises in oil prices.

The fall of foreign aid inflow below the projected amounts had two major impacts on the development budget:- (i) The resort to deficit financing contrary to the initial projections during the Five Year Plan (1970/71-1974/75). (ii) The failure to meet the development budget targets: This is illustrated by table 5.23 which shows that the overall average fulfilment of the development budget was only 68.5 percent of the initial estimates; but this was also partly caused by delays in project implementation due to technical and other reasons.

Notes and References:

1. Sayigh, Y.A. (1978); The Economies of the Arab World: Development Since 1945, Vol. 1, Croom Helm, London, Ch. 9, p.339.

2. Dung is excrement of animals normally used as fuel for cooking; as plaster for traditional houses,and in building materials particularly brick manufacturing. An estimate of dung production was incorporated in National Income statistics for the first time in 1972/73 drawing on the experience of other countries. See, National Income: Accounts and Supporting Tables, 1972/73-1974/75, Department of Statistics, Khartoum, p.4.

3. The Sudanese government issued three Acts to encourage private investment in different activities:-

   (i) The organization and Encouragement of Investment in Economic Services Act, 1973.

   (ii) The Development and Encouragement of Industrial Investment Act, 1974.

   (iii) Promotion of Agricultural Investment Act, 1976.

4. Industrial Bank of Sudan Guide, undated, Khartoum (in Arabic).

5. Industrial Bank of Sudan, Annual Report, 1973, Khartoum, p.10.

6. Agricultural Bank of Sudan, Annual Reports, Khartoum.

7. Economic Prospectus on the Sudan (1977); Banque Arab Et Internationale D'Investissement (BA 11), p.31.

8. The 5-year Plan for Economic and Social Development of the Democratic Republic of the Sudan, (1970/71-1974/75), Vol. I, Ministry of Planning, Khartoum, paragraph 49, p.35.

9. Kiss, J. (1977); Will the Sudan be an agricultural Power? Studies on Developing Countries No. 94, Institute for World Economics of the Hungarian Academy of Science, Budapest, p.5. Also in this connection see, Berkoff, D.J.W. and Adams, M.E. (1979); Which way Sudan Agriculture? EDCC, Vol. 27, No. 1, pp.195-8.

10. Adams, M.E. and Howell, J. (1979); Developing the Traditional Sector in the Sudan, EDCC, Vol. 27, No. 3, p.506.

11. ILO (1976); Growth, Employment and Equity: A Comprehensive Stragegy for the Sudan, Geneva, pp.33-5. The mission also acknowledged that "Unutilized irrigation water needs to be exploited, large areas of rain-fed land where the soil is too heavy to work by hand are waiting to be brought into use under mechanized farming schemes." p.33.

12. Ibid., Technical Paper No. 4, pp.275-82, "An Agricultural Strategy for Western Sudan."

13. The 6-year Plan for Economic and Social Development (1977/78-1982/83), Vol. I, pp.47-72, "Main Features of the Development Strategy" (Arabic Version).

14. Rasheed, S. (1977); The Experience of Public Industrialization in the Sudan, Printed in El Hassan, A.M. (ed.) (1977); Essays on the Economy and the Society of the Sudan, Vol. I, NCR/ESRC, Khartoum, table 2, p.89.

15. Ibid., p.88.

16. Ibid., p.89.

17. Ibid., table I, p.86.

18. Ibid., pp.88-9.

19. Economic Survey, 1977/78, Ministry of Finance and National Economy, Khartoum, p.39, (in Arabic).

20. The Industrial Survey, 1970/71, Department of Statistics, Khartoum, p.250 (in Arabic).

21. Ibid., pp.22-8.

22. This Act is reproduced in Economic Prospectus on the Sudan (1977); op.cit., pp.73-7.

23. In this connection see, Suliman, A.A. (1975); Issues in the Economic Development of the Sudan, Khartoum University Press, Khartoum, pp.23-35.

24. Economic Survey, 1975/76, Ministry of Finance and National Economy, Khartoum, p.40.

25. Suliman, A.A. (1975); op.cit., p.26.

26. The Sudan was ruled by a 'Condominium Administration' including both Britain and Egypt.

27. The 10-year Plan of Economic and Social Development of the Republic of the Sudan (1961/62-1970/71). This Plan was criticized as being a collection of numerous projects that were not co-ordinated and for which financing was not assured.

28. Robson, P. and Lury, D.A. (eds.) (1969); The Economies of Africa, George Allen and Unwin Ltd., London, table 3, p.31. This table shows that the foreign resources requirement of different African countries' development plans as a percentage of the total planned capital investment in each case was 52% for Tanzania (1964-69); 51% for Kenya (1965/66-1969/70); 41% for Nigeria (1962-68); 33% for Ghana (1963/64-1969/70) and 27% for the Sudan (1961/62-1970/71). However, the Sudan represents the longest plan period among this group of countries.

29. The 5-year Plan (1970/71-1974/75); op.cit., p.108.

30. The 6-year Plan (1977/78-1982/83), Vol. I, op.cit., p.16.

31. Ibid., p.79.

32. The Economic Survey, 1975/76, op.cit., pp.97-8.

33. Sudanese Ministry of Foreign Affairs (1973); Peace and Unity in the Sudan: An African Achievement, Khartoum University Press, Khartoum.

TABLE 5.1.

The Distribution of Population Between Urban and Rural Areas,

(Percentages)

Years	1971/72	1972/73	1973/74	1974/75	Average
Urban & Semi-Urban	18.0	18.4	19.0	19.7	18.8
Rural	82.0	81.6	81.0	80.3	81.2
Total	100.0	100.0	100.0	100.0	100.0

Source: National Income: Accounts and Supporting Tables,

Department of Statistics, Khartoum.

TABLE 5.2.

An International Comparison of Adult Literacy Rates*

(1965-70 average)

Continent or Region	Africa	Asia	Latin America	Oceanic Islands	Europe & USSR	North America	World Average
Literacy Rate	26	53	76	90	96	99	66

Source: World Bank (1973); Trends in Developing Countries, table 3.6.

* Percent of adult population (15 years and over).

TABLE 5.3.

Adult Literacy Rate in the Sudan compared with some African Countries

(1975)

Country	Ethiopia	Zaire	Sudan	Morocco	Liberia	Zambia	Kenya
Literacy Rate	10	15	20	28	30	39	40

Source: World Bank/IBRD, World Development Report, 1980, Oxford University Press, table 1, p.110.

TABLE 5.4.

GDP by Kind of Economic Activity at Current Market Prices, 1969/70-1977/78 (Percentages)

Economic Activity	69/70	70/71	71/72	72/73	73/74	74/75	75/76	76/77	77/78
Agriculture	37.6	38.7	39.0	38.4	41.4	38.5	38.9	39.0	39.2
Commerce, Finance & Services	33.6	33.6	34.1	34.9	33.0	34.3	34.4	34.5	34.5
Industry, Mining & Quarrying	9.5	9.1	9.2	9.2	8.9	9.1	9.4	9.4	9.4
Transport & Communications	7.3	6.7	6.2	6.9	6.0	6.2	5.7	5.5	5.3
Construction	3.5	3.1	3.2	3.5	4.9	3.8	4.5	4.6	4.8
Electricity & Water Supplies	2.4	2.2	2.0	2.0	1.5	2.2	1.3	1.2	1.1
Sub-Total	93.9	93.4	93.7	94.9	95.7	94.1	94.2	94.2	94.3
Custom Duties	6.1	6.6	6.3	5.1	4.3	5.9	5.8	5.8	5.7
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Economic Survey 1977/78, Ministry of Finance and National Economy, Khartoum, table 1.1, pp.5-6.

TABLE 5.5.

The Distribution of Agricultural Output* between the Modern and the Traditional Modes of Production, 1971/72 - 1974/75 (£S.m. at Current Market Values)

Fiscal Years	Modern**		Traditional		Total	
	Value	%	Value	%	Value	%
1971/72	81.8	55.5	65.6	45.5	147.3	100.0
1972/73	83.7	55.5	67.2	45.5	150.9	100.0
1973/74	136.4	55.7	108.5	44.3	244.9	100.0
1974/75	146.7	55.7	116.7	44.3	263.4	100.0

Source: National Income: Accounts and Supporting Tables, 1971/72 and 1972/73 - 1974/75, Department of Statistics, Khartoum.

* Only includes 'agriculture proper', that is, crop production.

** The distribution of agricultural output between modern and traditional methods of production is based on official estimates.

TABLE 5.6.

Distribution of Industrial Output between Modern and Traditional Sectors, 1971/72 - 1974/75 (£S.m. at Current Market Values)

Fiscal Years	Modern		Traditional		Total	
	Value	%	Value	%	Value	%
1971/72	60.1	78.5	16.5	21.5	76.6	100.0
1972/73	57.1	71.9	22.3	28.1	79.4	100.0
1973/74	84.3	78.6	22.9	21.4	107.2	100.0
1974/75	113.6	82.1	24.7	17.9	138.3	100.0

Source: As for table 5.5.

TABLE 5.7.

Distribution of Agricultural Output between Public and Private Ownership, 1971/72 - 1974/75 (Percentages)

Fiscal Years	Public	Private	Total
1971/72	42.9	57.1	100.0
1972/73	42.9	57.1	100.0
1973/74	42.9	57.1	100.0
1974/75	43.1	56.9	100.0

Source: As for table 5.5.

TABLE 5.8.

Major Export Items as Percentages of Total Value of Export Proceeds for the Period 1970 to 1977

Items	1970	1971	1972	1973	1974	1975	1976	1977	Average
Cotton	61.3	61.1	58.6	55.4	35.5	46.0	50.7	57.2	53.2
Ground nuts	5.3	8.1	7.8	8.5	14.9	22.6	20.2	12.5	12.5
Sesame	6.3	7.0	7.4	7.0	13.5	7.8	9.0	7.9	8.2
Gum Arabic	8.8	7.0	7.3	4.9	11.7	5.0	5.8	5.9	7.1
Oil-Cakes and Meals	5.4	3.9	3.5	5.2	1.8	2.7	2.6	3.4	3.6
Others*	12.9	12.9	15.4	19.0	22.6	15.9	11.7	13.1	15.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Bank of Sudan 18th. Annual Report 1977, p.22.

* Include livestock, meat, sorghum, edible-oil, etc.

TABLE 5.9.

Percentages of Economically-Active Population Engaged in the Agricultural Sector for Selected Years: A Comparison between the Sudan, Africa and the World

Years	1965	1970	1975	1976
World	54.2	51.0	47.9	47.3
Africa	74.1	71.5	68.6	67.9
Sudan	83.9	82.0	79.5	79.0

Source: FAO Production Year-Book 1976, Rome, pp.61 - 3.

TABLE 5.10.

Land Use in the Sudan as a Percentage of its Total land Area.[1]

Description	1961-65	1966	1970	1975
Arable Land & Permanent Crop:	2.6	2.6	2.7	3.2
Of Which				
(i) Arable Land[2]	99.6	99.5	99.5	99.4
(ii) Permanent Crop	0.4	0.5	0.5	0.6
Permanent Pasture	10.1	10.1	10.1	10.1
Forests and Woodlands	38.5	38.5	38.5	38.5
Other Land[3]	48.8	48.5	48.7	48.2
Total Land Area	100.0	100.0	100.0	100.0
Irrigated Land as % of Arable Land[4]	15.5	16.9	19.7	20.1
Rate of Utilization of Unused Land	-	0.06	0.16	1.34

Source: FAO Production Year Book 1976, p.47.

Explanatory Notes:

(1) Land constitutes 94.8% of total area of the Sudan.

(2) Figures are approximated to the nearest one decimal point.

(3) 'Other land' includes unused but potentially productive land.

(4) Irrigated land refers to areas purposively provided with water.

- Calculations are based on the figures in Appendix 1.

- The last two columns are the Author's calculations.

TABLE 5.11.

Capacity Utilization in Some Public Industrial Establishments 1968/69, 1971/72 - 1973/74 (Percentages)

Name of Establishment	1968/69	1971/72	1972/73	1973/74
El Guneid Sugar Factory	31.0	47	70	75
El Girba Sugar Factory	84.0	105	118	126
Kasala Onion Dehydration Factory	36.4	17	19	54
Aroma Cardboard Factory	7.0	closed down		
Karima Canning Factory	14.4	9	10	13
Karima Dates Factory	33.3	37	89	27
Wau Canning Factory	11.0	5	10	10
Babanousa Factory				
(i) Milk	0.7	6	14	15
(ii) Karkadi	-	27	71	33
(iii) Gum Arabic	-	107	59	104

Source: 1968/69 from Rasheed, S. (1977); The Experience of Public Industrialization in the Sudan, Printed in El Hassan, A.M. (ed.) (1977); Essays on the Economy and the Society of the Sudan, Vol. 1, NCR/ESRC, Khartoum, table 2, p.87.
1971/72 - 1973/74 from ILO (1976); Growth, Employment and Equity: A Comprehensive Strategy for the Sudan, Geneva, p.286.

\+ Some factories operate at more than their installed capacities by increasing work shifts.

TABLE 5.12.

Distribution of Manufacturing Industries between Public and Private Ownership* (£S.m.)

The Particulars	Public	Private	Total
Amount of Investment	60.603	42.101	102.704
%	59.0	41.0	100.0
Total Wages	6.503	6.444	12.947
%	50.2	49.8	100.0
No. of Employees	21870	20953	42833
%	51.1	48.9	100.0
Value Added	14.565	12.886	27.451
%	53.1	46.9	100.0
Total Production (at Factor Cost)	42.231	39.661	81.892
%	51.6	48.4	100.0
No. of Establishments	56	153	209
%	36.8	73.2	100.0

Source: The Industrial Survey 1970/71, Department of Statistics, Khartoum, (in Arabic), p.248.

* Ownership is based on holding 51% or more in the establishment.

TABLE 5.13

Government Revenues and Expenditures for the Fiscal Years 1969/70-1976/77 at Current Values (£S.m.)

Fiscal Years	Revenues	% increase over previous year	Expenditure	% increase over previous year	Budget Surplus
1969/70	149.4	-	143.9	-	5.5
1970/71	164.5	10.1	146.4	1.7	18.1
1971/72	163.7	-0.5	153.3	4.7	10.4
1972/73	176.3	7.7	171.9	12.1	4.4
1973/74	209.5	18.7	189.6	10.3	19.9
1974/75	287.8	37.6	264.0	39.2	23.8
1975/76	332.0	15.4	303.2	14.9	28.8
1976/77	388.4	17.0	351.2	15.8	37.2
Average	234.0	15.1	215.4	14.1	18.5

Source: The Economic Surveys for 1975/76 and 1977/78, Ministry of Finance and National Economy, Khartoum.

N.B. See Appendix 2 for the trend line.

TABLE 5.14

The Ratios of Tax to Non-Tax Revenue in the Total Public Revenues for 1969/70 - 1976/77 at Current Values (£S.m.)

Fiscal Years	Tax Revenue	% of Total Revenue	Non-Tax Revenue	% of Total Revenue	Total Revenue	
1969/70	82.5	55.2	66.9	44.8	149.4	100.0
1970/71	102.0	62.0	62.5	38.0	164.5	100.0
1971/72	110.1	67.3	53.6	32.7	163.7	100.0
1972/73	118.8	67.2	57.5	32.6	176.3	100.0
1973/74	142.8	68.2	66.7	31.8	209.5	100.0
1974/75	216.5	75.2	71.3	24.8	287.8	100.0
1975/76	245.6	74.0	86.4	26.0	332.0	100.0
1976/77	263.5	67.8	124.9	32.0	388.4	100.0
Average		67.1		32.9		

Source: As for table 5.13.

TABLE 5.15

Tax Revenue as a Percentage of General Government Total Revenue of Some African Countries for 1973

Country	%
Sudan	85.9
Sierra Leone	85.9
Somalia	85.9
Botswana	84.3
Lesotho	84.1
Zambia	79.5
Nigeria	78.7
Kenya	74.5
Africa	79.5

Source: World Bank, World Tables 1976, John Hopkins University Press, pp.432-437.

TABLE 5.16

Rate of Increase of Tax and Non-Tax Revenues, 1970/71 - 1976/77 at Current Values (£S.m.)

Fiscal Years	Increase of tax revenue over previous year £S.m.	% Change	Increase of non-tax revenue over previous year £S.m.	% Change
1970/71	19.5	23.6	-4.4	-6.6
1971/72	8.1	7.9	-8.9	-14.4
1972/73	8.7	7.9	3.9	7.3
1973/74	24.0	20.2	9.2	16.0
1974/75	73.7	51.6	4.6	6.9
1975/76	29.1	13.4	15.1	21.2
1976/77	17.9	7.3	38.5	44.6
Overall Average	25.9	18.8	8.3	10.7

Source: The Economic Surveys 1974/75 - 1977/78, Ministry of Finance and National Economy, Khartoum.

TABLE 5.17

Ratios of Direct and Indirect Tax Revenue to Total Tax Revenues

(Percentages)

Fiscal Years	Indirect Taxes	Direct Taxes	Total
1969/70	84.0	16.0	100.0
1970/71	84.0	16.0	100.0
1971/72	83.0	17.0	100.0
1972/73	82.0	18.0	100.0
1973/74	83.0	17.0	100.0
1974/75	85.0	15.0	100.0
1975/76	86.0	14.0	100.0
1976/77	83.0	17.0	100.0
Average	83.75	16.25	100.0

Source: As for table 5.16.

TABLE 5.18

Percentage Contribution of Direct and Indirect Taxes to Total Government Revenue, 1969/70 - 1976/77

Fiscal Years	Indirect Taxes	Direct Taxes	Total Percentage*
1969/70	46.5	8.8	55.3
1970/71	52.1	9.9	62.0
1971/72	55.5	11.7	67.2
1972/73	55.2	12.1	67.3
1973/74	56.9	11.3	68.2
1974/75	63.8	11.5	75.3
1975/76	63.6	10.3	73.9
1976/77	56.6	11.3	67.9
Average	56.3	10.9	67.1

Source: Various Issues of Economic Survey, Ministry of Finance and National Economy, Khartoum.

* There are minor discrepancies between these totals and those in table 5.14 because of roundings.

TABLE 5.19

Functional Classification of the Central Government Current Expenditures, 1969/70 - 1976/77 Average, (Percentages)

Functional Category	Average
Economic Services	12.3
Social Services	10.8
Loan Repayments	9.6
Defence and Security	23.3
Local Governments	15.8
Miscellaneous	28.2
Total	100.0

Source: The Economic Survey 1977/78, Ministry of Finance and National Economy, Khartoum.

N.B. See Appendix 3 for further information.

TABLE 5.20

The Five Year Plan Projection of Foreign Aid as a Percentage of the Annual Development Budget: 1970/71 - 1974/75 (£S.m.)

Fiscal Years	Development Budget*	Foreign Aid**	Aid as % of the Total
1970/71	36.0	18.7	51.9
1971/72	37.8	18.8	49.7
1972/73	39.7	19.1	48.1
1973/74	42.0	19.2	45.7
1974/75	44.5	19.2	43.2
Total	200.0	95.0	47.5

Source: Ministry of Planning (1970); The 5-Year Plan of Economic and Social Development of the Democratic Republic of the Sudan for 1970/71 - 1974/75, Major Trends of Development, Vol. 1, p.114.

* Capital investment.

** Foreign loans, credits, grants and other receipts.

TABLE 5.21.

The Percentage Ratio of Total Export Receipts to GDP for 1966-77 (£S.m.)

Years	Exports* (X)	GDP (Y)	% Ratio of X to Y
1966	84.8	575.0	14.8
1967	87.7	613.2	14.3
1968	102.9	647.8	15.9
1969	104.2	701.5	14.9
1970	116.9	761.1	15.4
1971	127.0	832.4	15.3
1972	133.1	896.8	14.8
1973	174.1	1246.2	14.0
1974	161.8	1510.8	10.7
1975	181.0	1718.3	10.5
1976	251.2	1954.8	12.9
1977	287.8	2224.4	12.9

Source: For GDP figures see The Economic Survey 1977/78, Ministry of Finance and National Economy, and data collected from the Department of Statistics, Khartoum.
For exports, see Bank of Sudan Annual Reports, 1966-77.

* Exports of goods and services.

TABLE 5.22.

Gross Receipt of Foreign Capital* as a Percentage of GDP :

1966-77 (£S.m.)

Years	%
1966	4.5
1967	4.2
1968	1.9
1969	2.6
1970	1.7
1971	1.3
1972	4.1
1973	2.5
1974	9.1
1975	4.2
1976	2.7
1977	1.2
Average	3.3

Source: Table 6.10 for Gross Receipt of Foreign Capital.

Table 5.21 for GDP.

* On account of public and semi-public sector.

TABLE 5.23

Development Budget Estimates Compared with the Actual Expenditures, 1970/71-1976/77, (£S.m.)

Years	Budget Estimates	Actual Expenditure	% of Actual to Estimates
1970/71	37.1	26.6	71.7
1971/72	65.9	29.8	45.2
1972/73	65.5	29.6	45.2
1973/74	105.8	41.8	39.5
1974/75	156.6	102.4	65.4
1975/76	131.7	113.1	85.9
1976/77	254.2	216.4	85.1
Total	816.8	559.7	68.5

Source: Bank of Sudan Annual Reports, 1970-77.

CHAPTER SIX

Foreign Aid Inflow into the Sudan

6.1. A Sectoral and a Source Analysis of Foreign Loans : Commitments

The inflow of foreign aid into the Sudan started soon after the country became independent in 1956. Its size has greatly increased over time and its sources have become much more diversified. A new source of aid in recent years is the various Arab oil-producing countries' funds financed out of the surpluses that result from oil exports.

The following analysis divides the donor countries into five groups:- The World Bank and its affiliates (IDA, IBRD ...) represent the international multi-lateral sources of lending. The African Development Bank, the Islamic Bank and the Arab Fund for Economic and Social Development are grouped under 'Regional Banks'. The Arab Fund for Economic and Social Development is quite often categorized under the 'Arab Funds', a term that includes all the lending activities of the Arab countries.[1] But since its lending operations are similar to other regional banks (such as the African Development Bank, the Inter-American and the Asian Development Banks), it is misleading to regard it as a bilateral donor. The structure and nature of its loans is different from those bilateral funds that exist in the oil-rich Arab countries which are designated as 'Arab Funds'. Western European countries, United States of America, Canada and Japan are grouped

under 'Developed Market Economies' because of the similarity of their economic systems. East European countries, Russia, China and Northern Korea are grouped under 'Centrally-Planned Economies' because their approach to foreign assistance is more or less similar.

The Sudanese economy is divided into four sectors:- agriculture and irrigation, industry, transport and communication and finally services. However, the analysis will treat the 'electricity and water supplies' and 'the purchase of equipment for different development purposes' as separate items. The size of the latter item provides an indication of the magnitude of the tied proportions of aid which predominantly comes from 'Developed Market Economies.'

The present data have been collected from different sources; domestic and foreign. One of the main observations about data published by Sudanese sources is that up to very recently (1977), the administration and negotiation of foreign loans were left for each unit to use its own approach and there was no one administrative body that could effectively regulate and manage the inflow of foreign loans and hence could make available the necessary information. Information on foreign loans is therefore scattered among the different government and semi-government units and is, in some cases, contradictory.[2] This makes it difficult to find detailed information about certain loans.

The World Bank and its affiliates are the source of international multi-lateral aid. The start of its lending operations to the Sudan dates back to 1958 when Sudan Railways secured a £S.13.6 m. loan that

carried 5 percent interest rate and was repayable in twenty years time. In the period that followed, the World Bank extended its lending activities to cover all the sectors of the Sudanese economy. IDA generally extends development loans that are characterized by longer maturity periods (usually 50 years), 10 years of grace periods and are often interest-free. The terms of IDA loans are thus softer than the World Bank loans. The latter may charge interest rates up to 6 percent and usually allows only short maturity and grace periods. The Sudan received a number of loans from IDA.

Table 6.1. shows that agriculture and irrigation together received the biggest share of Sudan's loans from the international multi-lateral agencies during 1958 to 1977, both in number and value. The loans to agriculture were invested in the Managil extension of the Gezira Scheme which was embodied in the 10-year Plan, mechanized agriculture in the Gadarif and Kasala areas, El Rahad project and two loans for regional development in the south and southern Darfur development project in 1977. The average interest rate for all these loans was 2 percent. This was a relatively low average because of the inclusion of the six interest-free loans out of a total number of nine that were granted to the Sudan from IDA. The loans to transport and communication were extended to Sudan Railways (which then became the major beneficiary), followed by civil aviation authorities and the Roads Department in the Ministry of Transport. The industrial sector received the lowest value share of 2.5 percent with two loans for the Industrial Bank of Sudan in 1973 and 1975.

Hence, international multi-lateral aid to the Sudan was directed primarily to agriculture and transport reflecting the commonly held view that the country's comparative advantage clearly lay in agriculture.[3] Also, this reflected the view that a major bottleneck to development progress would remain as long as the transportation net-work was incapable of providing adequate services to move consumer goods, machinery and products to and from production and consumption areas and also from Port Sudan to the fields.

Table 6.2. shows the contribution of 'Regional Banks' to development finance in the Sudan during 1971 to 1977. Transport and communications category was the main beneficiary, with all the loans from the Arab Fund for Economic and Social Development going into this category partly to cover the costs of the extension of the road between Gadarif and Kasala as part of Khartoum - Port Sudan highway, Sennar - El Damazin and El Rahad project roads. Most of the loans from the African Development Bank were directed to transport (55.5 percent) and electricity supplies (41.0 percent) and the remaining (3.5 percent) was spent on the development of animal resources. The maturity periods of the Arab Fund's loans ranged from 50 years for two loans to less than 16 years for another three. The Islamic Bank which was recently established granted the Sudan two interest-free loans with maturity periods of 18 and 13 years for educational services and the transport sector respectively. These loans carried one year grace periods and both amounted to just over £S.3 m. in value. It is worth mentioning that the Arab Fund for Economic and Social Development joined with the African Development

Bank and the Kuwait Fund in financing Khartoum - Port Sudan road and Sennar - El Damazin road respectively.[4]

Table 6.3. shows the lending activities of 'Developed Market Economies' countries to the Sudan. The most striking feature of this group of countries loans was the high proportion that was directed towards the purchase of machinery and equipment for different developmental purposes. 47.3 percent of the total value of their loans was in the form of equipment purchases that entered most of the economic activities in the country. These types of loans are usually extended on condition that they would be spent in the donor country's markets. This restriction on recipient countries often entails effective additional costs to the former and hence may reduce the 'true' grant element of such loans.[5] However, the interest charges on these loans were lower than other types of loans and their average maturity periods were relatively longer.

Of loans from U.K., 43.5 percent of the total value was devoted to purchase equipment, 31.6 percent for transport and communication and 22.8 percent for industrial development of which one loan was directed to the new sugar factory at north-west Sennar. It was noticeable that three British loans were directed to raise the efficiency of the two existing sugar factories which were facing technical and economic difficulties.[6] A major contribution of the United States of America was the provision of three loans to Sudan Airways for the purchase of two Boeing 707 aircraft.

Table 6.4. presents a picture of the structure and composition of the various Arab Funds and other Arab loans on a bi-lateral basis. These sources include Kuwait, Saudi Arabia, Abu Dhabi and Egypt. Egyptian assistance was represented by two loans that were granted for digging wells in the western parts of the country for the provision of drinking water. All this category's loans - with the exception of three from the Kuwait Fund - were granted in the 1970's. The phenomenonal increase of aid from Arab countries is explained by two main factors:- (i) the Saudi Fund provided its first loan to the Sudan in 1975 (the Fund was established in 1974), and the Abu Dhabi Fund extended its first loan in 1971 for the purpose of digging wells as part of the Anti-thirst Campaign that was launched by the government at that time. (ii) The Arab countries realize that within the framework of the Arab World, the Sudan possesses a better potential for agricultural development than most other countries in the region.[7] Hence, the Sudan stands reasonable chances of supplying the area with food and other agricultural products. As a consequence, the Arab countries escalated their lending to the Sudan.

The construction of roads and the development of communication systems took a considerable share of the Arab loans. The Kuwait Fund provided two loans in 1973 and 1975 that amounted to more than £S.20 million for construction of a pipeline to link Port Sudan and Khartoum through Atbara. Thereafter, the pipeline relieved the growing pressure on an over-burdened Sudan Railways of moving petrol from Port Sudan to the interior of the country. Interest charges on these two loans were

8.5 percent with two years grace period and ten years for maturity. By all standards, they were relatively hard loans.

'Centrally Planned Economies' granted the Sudan various loans that were designed to serve a multitude of interrelated activities. For example, we find one loan being allocated to agriculture, industry, transport and purchases of equipment. This made it difficult if not impossible to prepare a sectoral classification of such loans and their end-uses similar to that adopted for other categories unless we acquire detailed information on the particulars of how each individual loan was actually spent. Centrally planned economies had contributed in the establishment of the state-owned food-processing industries during the 1960's. However, since 1956 - when the first loan from a socialist country was provided by Yugoslavia for transport and industry - to 1972, a total of £S.77.8 million was granted to the Sudan from these countries with an average interest rate of 2 percent.

The previous tables (6.1. - 6.4.) present a sectoral analysis of loans from different categories of donors. Table 6.5. shows the contribution of each category of donors in relation to total lending. Before the emergence of the various Arab Funds, the two major sources of aid to the Sudan were 'Developed Market Economies' and international multi-lateral agencies. In the last few years, the Arab Funds contribution had been building up to the present level of 25 percent of the total value of loans.

In terms of sectors, we found that transport and communications

were the main beneficiary activities; taking 36 percent of all loans. 'Agriculture and irrigation' was the second main beneficiary sector with 28.1 percent. The least benefiting sector was services. Table 6.6. presents the ranking of sectors with regard to foreign assistance. It reflects the importance attached by both donors and the Sudanese authorities to developing an adequate transport system that could underpin development efforts.

The next section will deal with the disbursement of foreign loans that took place during the period 1966-77. This also will be examined in connection with both; the growing trade gap and the depletion of the country's foreign reserves which characterized the period under review.

6.2. A Sectoral and a Source Analysis of Foreign Loans: Disbursement

6.2.1. Some Conceptual Issues

The analysis in the previous section was of foreign aid commitments. But that did not reflect the actual amounts of resources that actually entered the country because such commitments might not be fully drawn due to various economic and political factors that had dictated the disbursement of such loans. From an economic point of view, the implementation of development projects whether they are wholly or partially financed by foreign aid or even domestically-financed may be subject to considerable delays because of the frequent emergence of unanticipated bottlenecks, an under-estimation of the existing

constraints on development or some other reasons. For example, inefficiency of the transport system, shortages of construction and other domestically-produced materials, deficiencies in the required numbers of labourers and personnel, the incapability of the government to fulfil its commitments towards local currency components of projects and the extent of the country's success in keeping inflation at reasonably low levels so that it would not hamper the execution of the development programmes ... etc., are factors that would lead to accumulation of undisbursed balances. When these factors are taken together, they represent a useful economic indicator of the absorptive capacity of the given economy. On the political side, the inflow of foreign aid that has already been committed may be interrupted or cancelled if political relations between the donor and the recipient country deteriorate; something that often characterizes bilateral aid. Also, drawings on development funds may lag behind commitments because such drawings may be linked with the results of some preliminary surveys or await further information about the specific project. However, drawings may not be subjected to such delays in the cases of cash loans, short-term borrowing from international financial institutions, IMF loans for stabilization programmes and grants whether in cash or in kind. For all these reasons, disbursements of foreign assistance funds do not necessarily match the size of commitments and so that undisbursed balances build up.

Foreign assistance of course, is not necessarily given only for development purposes. To that extent, the inflow of foreign aid in gross

terms will differ from the funds that are drawn for developmental purposes. The former includes all foreign assistance that a country acquires of which the latter is one category. Gross receipts of foreign aid include IMF loans for stabilization measures designed to restore internal and external equilibrium.[8] These dealings with IMF including the purchases and repurchases of the SDR's are not funds that are directly channelled to developmental purposes, but they contribute to the development process by improving the overall economic situation in the country.

By the same reasoning, cash loans are not developmental funds. However, some of these loans may be used to support the development process rather than the ordinary budget or the imports of consumer goods. Also, loans from Developed Market Economies provided for the purchase of equipment are classified as developmental funds since they constitute a substantial part of the foreign exchange requirement of different development projects. However, loans may also be extended for purchase of direct consumption goods. For example, West Germany provided the Sudan with such types of loans bearing relatively low interest charges. Food aid for under-nourished people and refugees and also food extended under the United States of America PL 480 are treated similarly. In contrast, foreign technical assistance is an integral part of development aid.

All the above-mentioned forms of foreign aid make up the category designated as 'total gross aid receipts.' But they should be excluded when we consider the amounts of foreign aid resources that

directly enter the development budget of the recipient country. In other words, the main concern is about development aid rather than gross aid receipts. The latter includes loans and grants that are, for instance, designed to stop the depletion of the country's foreign exchange reserves, to offset the adverse effects caused by deterioration of the terms of trade, to meet short-term current expenditure requirement ... etc. Such a distinction is useful when one examines the future prospects of debt accumulation and attempts to define the different sectors of the economy that are likely to contribute in containing the indebtedness problem (if that becomes so) within manageable levels.

6.2.2. Disbursement of Foreign Assistance

This section presents an analysis of the source and the sectoral distribution of loan disbursement for development purposes and the share of foreign aid in the actual public investment of each sector. Table 6.7. shows the percentage distribution of foreign loan disbursement by source for the period 1966-77. This period covers the second half of the 10-year Plan and the whole period of the Amended 5-year Plan which includes the Two-year Interim Programme of Action.[9] The Interim Programme was intended to end in the fiscal year 1977/78 when the 6-year Plan would then be put into effect.

The source-mix of development loans has been subject to annual variations. For example, the 'Developed Market Economies' were the largest contributor in 1968, but their percentage share contribution fell drastically in 1969. Despite such fluctuations, the three main donors

to the Sudan remained the same over this period; namely international multi-lateral agencies, Developed Market Economies and Arab Funds. The ranking of donor sources is similar to that of aid commitments except that in the latter the 'Arab Funds' group ranked in the first place.[10] The last row of table 6.7. shows the average percentage share of each source for 1966-77. 21.4 percent of the total disbursement came from the international multi-lateral agencies and only 3.5 percent came from the 'Regional Banks'. Both of these sources made up one-fifth of the total development disbursement during the period under review. Therefore three-quarters of disbursement came from bilateral sources.

The changing pattern of the source-mix of aid may be mainly attributed to the strict definition of 'development loans' being adopted and the choice of the period under consideration which witnessed an increasing size of Arab Funds lending to the Sudan. Another possible explanation may be that the amounts of foreign aid from 'Developed Market Economies' was interrupted during the late years of the 1960's and the early years of the 1970's because of political reasons. The 'Centrally Planned Economies' increased their relative share in the total disbursement at the beginning of the 1970's but this did not make up for all the fall in the share of other sources and so the amounts of disbursed aid funds fell sharply to low levels during these years. The political instability that characterized those years might have been a retarding factor in this context.

Table 6.8. presents a sector distribution of disbursed loans from all sources with the exception of Centrally Planned Economies for the

reasons that were mentioned in the previous section. The ranking of the sectors in accordance with disbursement does not significantly change from that of commitments except for the industrial sector.[11] The ranking order of the industrial sector deserves closer examination since it is usually given priority in the developing countries' allocation of development funds second to the agricultural sector. This is the reason we find that the amounts of loans commitment for industrial development are comparably large. Therefore, the situation of slow industrial development should be discussed with regard to the implementation speed more than to the availability of the necessary capital. Generally speaking, the Sudanese economy faces many difficulties, but the industrial sector is also confronted with particular problems of its own.

Chapter 5 examined the main factors that limited the speed of the industrial sector expansion whether public or private during the period since independence when the authorities had been stressing the important role that agro-allied industries could play in shaping the future of the economy. Industrial development gathered momentum at the beginning of the sixties. Most of the projects included in the first plan (1961/62-1970/71) were completed by mid-sixties. The last few years of that plan did not witness the establishment of any major industrial undertaking. This could partly explain the absence of an appreciable foreign aid disbursement to the industrial sector in relation to other activities during the period under review.

Table 6.9. provides information on the contribution of foreign aid in the annual development expenditure of individual sectors. The analysis covers only the amended 5-year Plan (1970/71-1974/75) for data reasons. The three major sectors of the economy (namely, agriculture, industry and transport) are considered separately. Other activities including services, development budget reserves, allocation of regional funds ... etc., are grouped under 'Others'. In the development budgeting practice, the term 'Others' normally include services, United Nations technical assistance, unallocated funds and those funds being allocated for the southern part of the Sudan. In contrast, in disbursement data, 'Others' include services, foreign loans to purchase machineries and loans from 'Centrally Planned Economies' The latter two items may enter any sector in varying proportions, but to establish evidence about the manner they are spent and hence the beneficiary activities is difficult and in any event inconclusive.

For the transport sector investment, 43 percent came from foreign aid, while one-quarter of total development expenditure during this period was devoted to that sector. The transport sector received about a half of the total foreign aid development funds. However, it is still regarded as one of the main bottlenecks to the growth of the economy as a whole. The percentage of development funds devoted to the transport sector was relatively high, but the absolute amounts were, by all standards, small given the vast areas of the country and the long distances between production and consumption areas. This period witnessed the construction of various roads that linked Khartoum with different production areas, and

Port Sudan with Khartoum through the eastern parts of the country. The latter highway passes through Kasala, Gadarif and the Gezira areas which are prosperous regions and presently constitute a major support to the national economy. These production areas need seasonal labour particularly in the Gezira and Gadarif areas at harvest time of cotton, sesame and dura (sorghum) and also for land preparation. There had been times when farmers failed to collect their crops because of either inavailability of working force or because manual labour shortages resulted in demand for higher wages so that it would be more sensible to leave the crops uncollected rather than incur the relatively high costs of collection, packing and storage. This situation had arisen because harvest time prices are normally low due to seasonal increases in supplies and limited capacity of the transport system to move large quantities of these goods to consumption areas.[12] Transport improvement should help to overcome these problems.

Total investment in the transport sector has considerably increased since 1974 because the authorities related most of the difficulties which face the development programme to the inadequacy of the transport system more than to other factors.

Table 6.9. shows that the agricultural sector received about one-fourth (on average) of public development expenditure during 1970/71-1976/77 which included one-quarter of the total foreign aid disbursement to the Sudanese authorities during this period. These funds were used to complete the unfinished projects carried over from the previous plan and also to construct modern irrigation systems such as those for El Rahad

project and the improvement and extension of mechanized farming by supporting the Mechanized Farming Corporation. As mentioned in chapter 5, the Northern and Nile Provinces (previously, the Northern Province) pumping schemes had been facing a number of difficulties that resulted in low productivity and frequent stoppages due to the lack of essential spare-parts and replacements and insufficient supplies of fuel. To overcome these difficulties, part of aid from U.K. to the Sudan was directed to technical improvements in these schemes and their irrigation systems. However, aid amounted to one-fifth of the total public investment in agriculture.

In contrast, the industrial sector had a low percentage of its total investment coming from foreign aid (4.1 percent), amounting to 4.6 percent of total development funds disbursement. But, 26.4 percent of total public investment during 1970/71-1976/77 went into the industrial sector. Most of aid to this sector went into new projects such as those for sugar, textile, kenaf ... etc., but also into raising the productivity of the existing state-owned industrial establishments such as Babanousa milk factory. Figures in table 6.9. show that investment in this sector had gradually increased and it was substantially higher in the last three years (at the closing period of the extended 5-year Plan) when total annual development expenditure stood at a high record of all times. The total annual development expenditure increased by 145.9 percent in 1974/75 compared with 1973/74 and 10.5 percent, 91.3 percent for 1975/76 and 1976/77 respectively. This period witnessed the largest inflow of foreign aid in gross terms so far.

Table 6.10. records the gross inflow of foreign aid in the Sudan. The components of this table include dealings with IMF cash loans, oil facilities ... etc. (items that are not directly related to development). As is seen in the table, 1974 witnessed the largest capital inflow in record. Cash loans amounted to £S.82.7 m. from the Kuwait Fund, the Arab Fund for Economic and Social Development, Saudi Arabia, Iran oil facilities, Abu Dhabi, Quatar and American Banks. The pattern of gross capital inflow was not stable, but was subject to considerable annual fluctuations. The economic factors that govern the gross inflow of foreign aid are different from those of development aid. The balance of payments situation, the position of the country's foreign reserves, and the revenue-expenditure balance of the budget are among the main factors that usually influence the size of gross foreign aid. Development aid is of course one of the principal components of gross inflow so that any changes in its size would affect the size of gross inflow. However, during the twelve year period under consideration, gross receipts from foreign assistance averaged £S.38.7 m. But if we exclude the year 1974 because of its outstandingly large figure, we arrive at a modest average figure of £S.29.7 m.

6.3. Some Related Elements

Table 6.11. shows the position of the current account of the balance of payments for 1966-1977. A deficit had been persistent all over this period except in 1973 when export revenue increased by 35.6 percent compared with the previous year and imports by just 6.3 percent. The current account showed a surplus due to this significant improvement

in the terms of trade. But in 1974 export revenue declined by 11.9 percent giving way to the largest deficit in record which was followed by an even larger one in 1975. There were two years where imports declined over previous levels. That was in 1969 and 1976 and appeared to be an outcome of government attempts to curb imports in the face of growing trade deficit. 1974 also witnessed the largest increase in imports (59.0 percent relative to 1973). The large inflow of foreign aid was partly to make up for the increasing costs of imports. 'Development aid' also increased during this year.

Measures to offset the effects of the adverse movement in the terms of trade included the negotiation of cash loans from different sources that would be used to pay for the import bill of consumer goods and oil. The country also drew on oil facilities from OPEC, Iran, Iraq, Saudi Arabia ... to make up for the increasing prices of oil after 1973. This problem is not confined to the Sudan, but is shared by most developing countries particularly those which are least-developed. Its urgency led to advocacy of special prices for those most affected by the upsurge of oil prices and the establishment of funds designed to help them overcome the adverse impact on their balance of payments and foreign reserves.

Diagram 10 shows the trend line of exports and imports during the period under review. It shows that the visible trade deficit has been increasing over time.

An important element is the size of foreign reserves which can be used to finance the deficit on current account. Their position in the

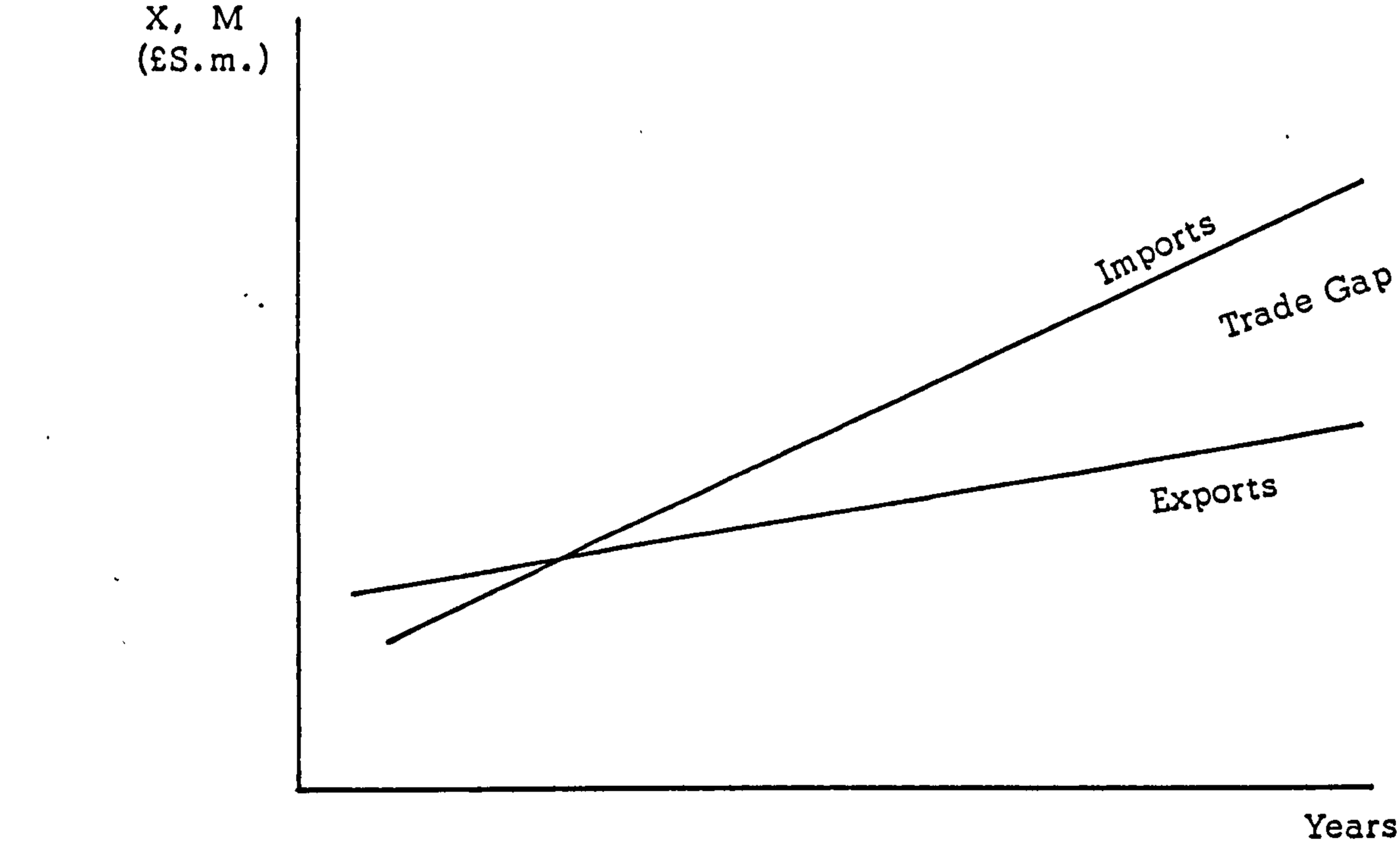


Diagram 10: The Trend Line of Exports and Imports (1966-77).

Sudan has been deteriorating since Independence as can be seen from table 6.12. They showed significant improvement in 1974, but at the 1976 level, they represented only 3.5% of the import bill of that year compared to 27.8% in 1965 (see table 12.11).

The deteriorating position of foreign reserves has been a cause of difficulties for foreign exchange budgeting. It causes delays in development financing because of the pressures to redirect foreign exchange to cure certain non-developmental economic problems such as imports of some consumer goods, oil ... etc. The underlying trend was that foreign reserves were sharply declining over years to 1977.

Another important aspect is the apparent gap between foreign loans' commitment and disbursement which is explained by many factors: the general performance of the recipient economy is one main factor that results in such discrepancy. An important indicator in this context

is the divergence between the estimated development budget and actual development expenditure. Part of the development budget funds comes from foreign assistance. So, the failure to fulfil the annual development target is reflected in the speed by which scheduled drawings from foreign commitments are taking place. However, delays in the completion of loans' agreements may also cause considerable delays in project implementation.

6.4. Concluding Remarks

Foreign assistance had significantly contributed to the public sector development expenditure programmes during the 1966-77 period, but its size fell well below the successive projections which had generally over-estimated the level of foreign capital inflow into the Sudan. Most of the acquired foreign development assistance was directed to the agricultural and the transport sectors in accordance with the development priorities suggested in the successive development plans. The agricultural development programme involved large-scale mechanized and rain-fed projects designed to produce both food-stuffs for domestic consumption, and material-inputs for the newly-established manufacturing industries. The development of the agricultural resources was paralleled by an industrial development stragegy which focussed primarily on food-processing and on the production of consumer goods. In addition to the substantial financial requirements of the infra-structural sector (particularly, transport and communications) the country's development strategy as a whole was prone to be capital-intensive and

therefore had a relatively high foreign exchange component. This led to a greater need for external resources particularly in aid form.

The last few years of the period under consideration witnessed increasing balance of payments difficulties which eventually resulted in considerable cash and balance of payments support borrowing. The foreign exchange crises had certainly retarded the progress of the development programme. The latter was also adversely affected by the increasing cost of the projects under progress, the shortage of domestic currency counterparts due to liquidity crises, and the inefficiency of the transport system. The relatively slow rate of development progress during this period had inevitably contributed to increases in the size of the undisbursed balances, as was shown by the growing differences between loans' commitments and their disbursed proportions.

Taking the present economic circumstances into consideration, foreign resources remain vital to successful achievement of the targets set in the long-term development strategy of the Sudan in filling both the saving and the trade gaps. The size of domestic savings was considerably below the required levels. The trade gap had also assumed a great significance in the past (and is likely to remain so) since it had been increasing over the years as a result of the insufficient rate of expansion of the country's exports in contrast to the rapid rate of growth of imports.

Foreign aid to the Sudan had come from both bi-lateral and multi-lateral sources, but a larger proportion of that was provided by the former category of donors which included the oil-exporting Arab countries, the developed market economies and the centrally planned economies. Since the Arab countries provided an increasingly important source of such aid, the next chapter will therefore focus on the major aid agencies in the Arab World with particular emphasis on their lending activities to the Sudan and their future prospects in that connection.

Notes and References

1. Demir, S. (1979); Arab Development Funds in the Middle East, Pergamon Policy Studies, Pergamon Press, p.xv. Although the Author has pointed to the different nature of the Arab Fund for Economic and Social Development compared with bilateral agencies such as the Kuwait Fund, he failed to separate its activities as a regional multi-lateral donor.

2. The Economic Survey, 1977/78; Ministry of Finance and National Economy, Khartoum, p.136 (in Arabic).

3. ILO (1976); Growth, Employment and Equity: A Comprehensive Strategy for the Sudan, Geneva, p.31.

4. Arab Fund for Economic and Social Development, Annual Reports, 1974 and 1977, Kuwait.

5. Bhagwati, J. (1967); The Tying of Aid, Printed in Bhagwati, J. and Eckaus, R.S. eds. (1970); Foreign Aid, Penguin Modern Economics Readings, pp.235-93.

6. The Economic Survey, 1977/78, op.cit., p.20.

7. Arab Fund for Economic and Social Development (1976); The Basic Programme for Agricultural Development in the Democratic Republic of the Sudan, 1976-1985: Summary and Conclusions, Kuwait, pp.9-13.

8. The Sudan concluded an agreement with the IMF in September 1966 to implement a 'stabilization programme'. The IMF granted the Sudan a loan amounting to 28.5 m. U.S. $ and the government was to reduce the size of its domestic borrowing.

9. The Interim Programme of Action (1975/76-1976/77) was an attempt to identify the various constraints to economic development and to focus on means to achieve 'self-sufficiency' in basic food-stuffs.

10. Table 6.5.

11. Table 6.6.

12. For example, the 1967/68 agricultural season witnessed an increase in acreage under cultivation but the output reaching the markets was not considerably higher than previous seasons. See, Bank of Sudan Annual Report, 1968, p.9-14.

TABLE 6.1

Sectoral Distribution of Aid from International Multi-lateral Agencies, 1958-77

Beneficiary Activities	% of Total Number	% of Total Value	Average Interest Charges
Agriculture & Irrigation	37.5	40.4	2.0
Transport & Communications	33.0	39.4	3.0
Electricity & Water Supplies	8.3	11.0	3.3
Services	12.5	6.6	0.0
Industry	8.3	2.6	0.0

Source: Loans Division, Ministry of National Planning, Khartoum. Based on the Author's calculations.

N.B. Totals may not add to 100 because of rounding.

TABLE 6.2

Sectoral Distribution of Loans from Regional Banks and Agencies, 1971-77

Beneficiary Activities	% of Total Number	% of Total Value	Average Interest Charges
Transport & Communications	64.3	83.5	3.1
Electricity & Water Supplies	14.3	7.1	3.0
Agriculture & Irrigation	14.3	6.9	4.25
Services	7.1	2.5	0.0

Source: As for Table 6.1

TABLE 6.3

Sectoral Distribution of Loans from 'Developed Market Economies', 1960-77

Beneficiary Activities	% of Total Number	% of Total Value	Average Interest Charges
Purchases of Equipment	25.5	47.3	2.1
Transport & Communications	41.2	28.8	4.3*
Industry	11.7	12.2	4.7
Agriculture & Irrigation	21.6	11.7	2.4

Source: As for Table 6.1

* Includes 4 grants.

TABLE 6.4

Sectoral Distribution of 'Arab Loans', 1962-77

Beneficiary Activities	% of Total Number	% of Total Value	Average Interest Charges
Agriculture & Irrigation	28.0	45.0	2.5
Transport & Communications	28.0	26.7	2.6
Industry	24.0	23.5	5.3
Electricity & Water Supplies	12.0	3.3	0.8
Services	8.0	1.5	1.5

Source: As for Table 6.1

TABLE 6.5

Percentage Distribution of Loans and Grants by Sources, 1956-77

Sources	% of Total Value
Developed Market Economies	31.9
Arab Funds	24.9
International Multi-lateral Agencies	22.0
Centrally Planned Economies	12.9
Regional Banks	8.2
Total	100.0

Source: Tables 6.1 - 6.4

TABLE 6.6

Sectoral Distribution of Development Aid to the Sudan, 1956-77 (excluding Centrally Planned Economies)*

Beneficiary Activities	% of Total Value
Transport & Communications	36.0
Agriculture & Irrigation	28.1
Purchases of Equipment	17.3
Industry	11.8
Electricity & Water Supplies	4.4
Services	2.4
Total	100.0

Source: Tables 6.1 - 6.4

* Reasons for this exclusion are cited in the text.

TABLE 6.7

Disbursement of Development Aid by Source, 1966-77

(Percentages)

Source / Years	International Multi-lateral Agencies	Developed Market Economies	Arab Funds	Centrally Planned Economies	Regional Banks	Total
1966	31.1	18.2	43.9	6.8	-	100.0
1967	34.0	49.5	13.4	3.1	-	100.0
1968	22.2	60.5	12.3	5.0	-	100.0
1969	56.0	2.0	34.0	8.0	-	100.0
1970	44.5	10.9	10.9	33.7	-	100.0
1971	51.9	3.9	15.4	28.8	-	100.0
1972	11.9	46.3	32.8	9.0	-	100.0
1973	12.4	25.7	51.3	10.6	-	100.0
1974	3.4	45.9	45.9	4.1	0.7	100.0
1975	24.2	36.9	22.7	3.2	13.0	100.0
1976	12.2	8.5	73.8	1.8	3.7	100.0
1977	31.6	-	64.2	-	4.2	100.0
Average	21.4	29.0	39.4	6.7	3.5	100.0

Source: Bank of Sudan Annual Reports, 1966-77.

N.B. Calculations based on figures in appendix 4.

TABLE 6.8

Distribution of Disbursed Aid Funds by Beneficiary Activities, 1966-77 (Percentages) - Excluding Centrally Planned Economies

Activities / Years	Agriculture	Industry	Transport	Electricity···	Services	Purchases···	Total
1966	20.3	5.7	22.0	-	39.8	12.2	100.0
1967	37.2	5.3	22.4	-	-	35.1	100.0
1968	16.9	-	22.1	6.5	-	54.5	100.0
1969	23.9	-	28.3	47.8	-	-	100.0
1970	29.5	-	18.0	50.8	-	1.7	100.0
1971	10.8	-	24.3	59.5	2.7	2.7	100.0
1972	13.1	-	4.1	32.8	0.8	49.2	100.0
1973	46.5	19.8	2.0	4.0	3.0	24.7	100.0
1974	12.9	4.3	63.2	1.4	1.4	16.8	100.0
1975	28.0	5.1	45.8	1.2	0.3	19.6	100.0
1976	40.6	4.1	45.5	1.1	0.4	8.3	100.0
1977	70.5	-	25.3	-	4.2	-	100.0
Average	28.9	4.4	35.5	8.2	3.9	19.1	100.0

Source: As for table 6.7

N.B. Percentages are calculated from data in appendix 5.

TABLE 6.9

The Contribution of Foreign Aid to the Public Sector Development Investment, 1970/71 - 1976/77 (£S.m.)

Fiscal Years	Particulars*	Agriculture	Industry	Transport	Others	Total
1970/71	I	9.7	1.6	6.7	8.6	26.6
	A	1.8	-	4.2	3.2	9.2
	$\frac{A}{I}$ %	18.6	-	62.7	37.2	34.6
1971/72	I	10.4	1.5	6.4	11.5	29.8
	A	0.4	-	3.1	1.7	5.2
	$\frac{A}{I}$ %	3.9	-	48.4	14.8	17.5
1972/73	I	11.1	1.9	9.1	7.5	29.6
	A	1.6	-	4.5	7.3	13.4
	$\frac{A}{I}$ %	14.4	-	49.5	97.3	45.3
1973/74	I	13.0	12.7	10.2	5.9	41.8
	A	4.7	2.0	0.6	4.0	11.3
	$\frac{A}{I}$ %	36.2	15.8	5.9	67.8	27.0
1974/75	I	21.4	36.0	28.0	17.0	102.4
	A	3.6	1.2	18.1	6.3	29.2
	$\frac{A}{I}$ %	16.8	3.3	64.6	37.1	28.5
1975/76	I	31.5	35.7	27.9	18.0	113.1
	A	9.4	1.7	15.8	7.8	34.7
	$\frac{A}{I}$ %	29.4	4.8	56.6	43.3	30.7
1976/77	I	63.1	58.1	48.1	47.1	216.4
	A	10.8	1.1	12.4	2.8	27.1
	$\frac{A}{I}$ %	17.1	1.9	25.8	6.0	12.5
1970/71 - 1976/77 (Totals)	I	160.2	147.5	136.4	115.6	559.7
	A	32.3	6.0	58.7	33.1	130.1
	$\frac{A}{I}$ %	20.2	4.1	43.0	28.6	23.2
	% of I	28.6	26.4	24.4	20.6	100.0
	%of A	24.8	4.6	45.2	25.4	100.0

Source: Bank of Sudan, Annual Reports 1975 and 1976. Total investment for 1976/77 is taken from the Economic Survey 1977/78, p.256. See Appendix 5 for data on aid disbursement.

*) I stands for total public sector's development investment.
) A stands for total foreign aid (disbursed only).

TABLE 6.10

Gross Receipts of Foreign Assistance, 1966-77 (£S.m.)

Years	Amounts
1966	26.0
1967	26.0
1968	12.3
1969	18.4
1970	12.8
1971	10.8
1972	36.4
1973	31.3
1974	137.6
1975	73.0
1976	53.4
1977	26.5
Total Average	38.7
Average (Excluding '74)	29.7

Source: Bank of Sudan Annual Reports, 1966-77.

TABLE 6.11

Position of the Current Account of the Balance of Payments, 1966-77, (£S.m.)

Years	Exports	Imports	Trade Balance	Invisible Balance	Position
1966	74.2	79.4	-5.2	-11.2	-16.4
1967	74.7	82.2	-7.5	-11.9	-19.4
1968	87.9	96.9	-9.0	-9.8	-18.8
1969	92.4	89.8	+2.6	-12.9	-10.3
1970	101.8	104.5	-2.7	-12.1	-14.8
1971	110.8	114.5	-3.7	-11.1	-14.8
1972	116.3	122.5	-6.3	-15.9	-22.1
1973	157.7	130.2	+27.5	-21.1	+6.4
1974	139.0	207.0	-68.0	-35.0	-103.0
1975	146.3	284.4	-138.1	-28.2	-166.3
1976	209.2	239.4	- 30.2	-34.6	- 64.8
1977	229.7	246.3	- 16.6	-15.9	- 32.5

Source: Bank of Sudan Annual Report, 1966-77 (Chapters on the Balance of Payments).

TABLE 6.12

Position of Foreign Reserves during the Period 1960-76, (£S.m.)

Years	Reserves	Increase or Decrease over previous year
1960	58.2	
1961	53.2	-
1962	50.1	-
1963	34.8	-
1964	24.7	-
1965	20.9	-
1966	19.9	-
1967	19.2	-
1968	16.7	-
1969	12.5	-
1970	7.7	-
1971	9.8	+
1972	10.5	+
1973	15.7	+
1974	34.1	+
1975	9.8	-
1976	8.4	-

Source: United Nations Statistical Year-Book, 1960- New York.

* + is an increase.
  - is a decrease.

N.B. See Table 12.11 for reserve/import ratios.

CHAPTER SEVEN

The Record of Major Arab Development Funds in the Sudan and some Related Issues

7.1. A Background Note

The Sudan receives foreign aid from different sources; from international multi-lateral agencies in its capacity as a member of the United Nations and an IMF subscriber; and from governments and their agencies. Bilateral foreign assistance has been accepted from any source, as long as acceptance does not conflict with sovereignty or territorial integrity.[1]

The various Arab Funds' contribution to development financing only became important during the 1970's when most of the Arab oil-exporting countries established 'development funds' that were primarily intended to provide financial support for developmental programmes and projects in the other Arab countries. This development recycled funds between those Arab countries with large capital reserves and those with acute shortages of investment funds.

The Sudan joined the Arab League in 1956 at the time of Independence. The latter was set up in 1945 as a political platform that included all the Arab countries but also served to co-ordinate these countries' efforts in economic, social and cultural fields with the ultimate goal of developing the available resources in a complementary manner. This was assumed to entail the transfer of capital to member

countries which lacked the necessary capital to make effective use of their available resources. This broad ideal had been given substance by, among other things, the establishment of the Arab Fund for Economic and Social Development which was a regional multi-lateral development agency designed to provide capital and technical assistance to subscribing members.[2] Since this financial agency could not transfer all capital that may be necessary to develop the region in a 'complementary manner' because of its limited capacity, and also its multi-lateral nature that neutralizes it from direct policy interests, oil-rich Arab countries established bilateral agencies. Some of these bilateral agencies were not confined to lending to Arab countries only but extended their activities to other developing countries as well. This development brought a new group of donors into the international lending arena that were not themselves developed countries but merely relatively rich ones. Developed countries' bilateral assistance to developing countries is often tied to purchases of equipment from the donor's market or to a certain project or to both. In contrast, rich developing countries do not normally possess the necessary technology that can be transferred to other developing countries. Thus, grants and loans from the latter countries were rarely, if ever, tied to any source of supply in their own markets. This was particularly evident in the case of Arab loans because, after all, they were (and still are) importers of consumer goods, raw materials and capital goods. Therefore, loans were tied, if at all, at the recipient country side, that is, to specific projects or sectors.

7.2. Some Bilateral Arab Funds and their Lending Operations to the Sudan

The oil boom of 1973 gave particular importance to OPEC members as a source of finance. Naturally, OPEC extends loans and grants to developing countries in the form of oil facilities primarily to enable the latter to pay for their oil imports.[3] In addition to that, individual members of OPEC provide loans and grants in support of socio-economic development in the Third World countries similar to those provided by the bi-lateral aid programmes of the developed countries.

This study is neither intended to cover all the lending facilities that are extended by oil-exporting Arab countries, nor to present a full account of the lending operations of Arab countries to the Sudan. The latter was examined in chapter 6 as a part of the analysis of foreign aid inflow and its sectoral distribution. This chapter is concerned more specifically with an assessment of the activities of Arab development funds both bilateral and regional multi-lateral and their contribution to different sectors of the Sudanese economy. This does not, however, reflect the full extent of any given donor country participation because of direct government-to-government dealings, apart from specific development funds' operations.

7.2.1. The Kuwait Fund for Arab Economic Development

The Kuwait Fund is the oldest aid agency in Arab countries having been established at the end of 1961 when Kuwait achieved Independence.[4] During the period leading to 1974, the Kuwait Fund had concentrated its activities entirely on Arab countries. But it was

re-organized in 1974 to widen its scope of activities and also to extend loans, presumably without affecting the size of its lending activities to the Arab countries, to developing countries in Africa and Asia. The Kuwait Fund provides loans and also technical assistance, for instance, for exploratory studies in natural resources development programmes.

Table 7.1. shows the sectoral and geographical distribution of Kuwait Fund's loans since its establishment. It is evident that loans to Arab countries had constituted nearly 70 percent of the total lending operations of this Fund. Although it was not long since the scope of the Fund's lending activities was widened, the share of loans to non-Arab countries had nevertheless grown significantly, particularly to Asian countries. The activities of the Fund had been concentrated on three major sectors; namely, agriculture, industry and infra-structure which included transport and communications and electricity and water supplies. This was in line with the Fund's policies of 'providing finance for projects that would have a direct developmental impact and that are of high priority in the development strategies of recipient countries'. The Fund generally "shuns financing social projects in education, health or population."[5] This is clearly evident from table 7.1. where not a single loan was provided for social projects in the Arab countries.

Table 7.2. shows that among the major recipient countries of the Kuwait Fund's loans, the Sudan ranked second in order with about 15 percent of the total amount of loans. These loans were directed to finance projects in agriculture, transport and industry in a manner that made the former sector the largest beneficiary followed by transport/

communication and storage and then the industrial sector which had least benefited.

Table 7.3. shows that the agricultural sector received 45.3 percent of the total value of loans extended by the Kuwait Fund to the Sudanese government. The industrial sector received an almost one-fifth of the total value. The particulars of these loans are shown in table 7.4. All loans were characterized by long term maturity periods (average 23 years). Average maturity periods differed between sectors and were 26.6, 21.4 and 17.5 years for agriculture, industry and transport respectively. The average grace period for all loans was 4.5 years. Interest charges contained 0.5 percent as administrative charges by the Fund for each loan. This appears to be a common practice that applies to all loans extended by the Fund and is not peculiar in the case of the Sudan (Sudanese sources, such as the Bank of Sudan, which provide information on foreign loans do not normally add this administrative charges to the interest rates on the Fund's loans.)[6] The average of interest charges was 3.25 percent for all loans with a 3 percent flat rate applicable to agricultural sector's loans, while loans to the industrial sector carried a 4 percent charge except for a 0.9 m.K.D. loan extended to 'Project Preparation Unit' of the Ministry of Finance for feasibility studies which carried only 1.5 percent interest rate. However, the latter loan can, in fact, be classified as being for 'general developmental purposes' rather than for the industrial sector.[7] It was a softer loan compared with others.

The main beneficiary on the agricultural side was El Rahad project

which received two loans for both phases I and II amounting to 14.5 m.K.D. bringing the total participation of the Kuwait Fund in the financing of this project to 15 percent of its total cost and 31 percent of its foreign exchange component. Reasons for the second loan included the rising cost of this project and certain essential alterations in its initial plan. Here the Kuwait Fund joined many other donors in the finance of El Rahad project; namely, IDA, the Arab Fund for Economic and Social Development and the United States AID.[8]

7.2.2. The Abu Dhabi Fund for Arab Economic Development

The Abu Dhabi Fund was established in 1971, the year in which the Federation of the United Arab Emirates came into existence;

> "to provide assistance to Arab, African and Asian countries for the development of their economies through loans and financial contributions towards capital investment in development projects and by means of extending technical assistance for carrying out field studies."[9]

The Fund extends loans to projects that have high priority ranking in accordance with recipient countries' development programmes and that are also economically viable, particularly where such investment provides incentives for individuals and private financial institutions to participate in the financing of the given project. Co-financing for relatively large projects is normally sought with other regional and international financial agencies.

Table 7.5. shows that Abu Dhabi Fund lending activities had concentrated on industry and on electricity and water supplies with less

than 10 percent of total value of its loans for agricultural development. This approach, particularly the emphasis on financing electricity and water supplies projects, was justified in this way:-

> "Adequate economic infra-structure is an essential pre-requisite to the economic development of any nation. Moreover, the construction of such vast and important projects requires huge volume of capital on concessional terms." [10]

Table 7.6. shows that among the six main recipient countries of Abu Dhabi Fund loans (together they received about three-quarters of the total value of loans), the Sudan ranked third in order with about 10 percent of the total value of loans. On the other hand, table 7.7. shows that the Sudan secured only three loans in total; two in 1976 - one for agriculture and the other for industry - and the third in 1977 for Sudan Railways. The largest of these loans was provided for the establishment of a new textile factory at Haj Abdulla. The terms of this loan were relatively harder than the other two loans, perhaps because of the commercial nature of this project.

It should be noted that the Abu Dhabi Fund had only started its lending operation to the Sudan in 1976 and that the Sudan had received only a few loans during this relatively short period. So, the experience so far may not provide a good guide to the level or pattern of its future lending to the Sudan.

7.2.3. The Saudi Fund for Development

The Saudi Fund started its lending operations in 1975 with

policies to provide concessionary loans for "public sector's projects - typically, agriculture, infra-structure, health and education - because although such projects are basic to economic development, they apparently have limited access to conventional sources of financing."[11] The main criteria for lending were to include: the effective contribution of the particular project to the economic and social welfare of the borrowing country, the over-all regional impact of the project on countries in the region, and the financial viability of the project including its ability to contribute to the repayment of the incurred debt. The Saudi Fund activities were not to be restricted solely to the Arab countries, but were extended to African, Asian and, more recently, to some South American countries (a loan was committed to Brazil in support of an electrification project).

During the first year of its lending operation, the Saudi Fund provided loans to four African countries; namely - Egypt, Tunisia, the Sudan and Uganda. As can be seen from table 7.8., the Saudi Fund's classification of regions is based on defining recipient countries by their continents rather than by any economic or political criteria. The scope of the Fund's activities was wide, however, the Arab countries remained the main recipients of its loans in both Africa and Asia.

Table 7.9. shows that the Sudan ranked high among the four African countries that received an almost three-quarters of the Saudi Fund loans during the fiscal year 1976/77. The Sudan received a total of three loans during the three years of the Fund's lending operations covered in this profile. As reported in table 7.10. the first loans was

extended to El Rahad project. The other two loans provided to the Sudan were to support the transport system. One of these loans was for financing a part of Port Sudan-Khartoum highway project and the other was for modernizing and increasing the capacity and efficiency of Port Sudan airport. The latter loan represented half of the total cost of the mentioned project. The two loans carried 2 percent interest charges; with 20 years maturity period and 5 year grace period for each. The total amount of the Saudi Fund's loans to the Sudan was equivalent to £S.22.5 million. In percentage terms, 56.5 percent of this amount went into the transport sector's development programme while the rest was directed to El Rahad project.

Summary

Having presented a profile for the main characteristics of the three bilateral Arab Development Funds, their lending activities and their scope of coverage; table 7.11. gathers together the relevant information on the Sudan. Bearing in mind the obvious limitation of any comparison between the different Funds, it is however clearly evident that the three main sectors of the Sudanese economy found varying levels of financial support from each Fund. This preference reflects each Fund's own foreign lending priorities as a bilateral donor that is influenced by the policies of its mother country.

The mentioned Development Funds were established to channel foreign assistance to other developing countries, but this does not necessarily mean that they are the only sources of development aid from these countries. There are in addition, direct government-to-

government loans and grants. These are significant in the case of Saudi Arabian government cash and development loans to the Sudan. Section 7.5 examines the impact of Arab capital including these funds, on the Sudanese economy and suggests ways of making the most effective use of that increasingly important participation.

7.3. The Arab Fund for Economic and Social Development

The Arab Fund is a regional multi-lateral development agency initiated by the Economic Council of the Arab League in 1968, but did not begin its operational phase until the beginning of 1972.[12] Two functions are normally performed by such regional financial agencies;

> "These are, first the mobilization of additional external resources either from governments or from the world's capital markets, and secondly the financing of projects which will contribute not only to the development of the individual member countries, but also to the integrated development of the region as a whole."[13]

Like the Asian, African and Inter-American Development Banks which were established to enhance developmental efforts in the respective regions for regional economic co-operation, the Arab Fund addressed itself to achieve similar objectives. It was intended to participate in the financing of economic and social development projects in the Arab countries by,

> "financing economic projects of an investment character by means of Loans granted on easy terms to governments and to public or private organisations and institutions, giving preference to economic projects that are vital to the Arab entity and to joint Arab projects."[14]

Accordingly, apart from financing projects of national interest to its members, the Arab Fund provides loans to projects that are designed to facilitate transport and communication between various Arab countries. For example, the Arab Fund financed the 'Telecommunication project' between Algeria and Morocco and 'Aden-Taiz highway' between the People's Democratic Republic of Yemen and the Yemen Arab Republic.[15] Such inter-Arab development projects are deemed crucial to achieve an integrated development programme in the region.

The Arab Fund also gives prominence to feasibility studies aiming at identifying inter-Arab projects, but normally carries these studies in co-operation with technical missions from international agencies in this field such as UNDP. An intensive study was undertaken for agricultural resources in the Sudan which resulted in the establishment of an 'authority' to implement the recommendations of that study designated as the Basic Programme ...) and also to carry out similar studies in other Arab countries. Both; the significance of 'Basic Programme' and the role of the 'agricultural development authority', will be examined in the next section.

Table 7.12. provides information on the sectoral-composition of the Arab Fund loans to all countries since its establishment. It shows that the Arab Fund apparently favoured capital investment in all types of infra-structural facilities. This included electricity, water supply, transport, communication ... etc. which received three-quarters of the total loans of the Fund up to the end of 1977. The agricultural sector least benefited relative to other activities having less than 10

percent of the total amounts of loans. Only three loans were, in fact, extended to the agricultural sector. The largest of these (16 m. K.D.) was provided for irrigation and agricultural credit support in Morocco and the other two loans were extended to Syria and Somalia. The. industrial sector received about 15 percent of the total amount of the Arab Fund loans.

Table 7.13 reveals that the Sudan ranked second in order of the main recipient countries of the Arab Fund's loans (which received more than 60 percent of the total value of its loans) with just over 11 percent of the total value of all its loans. All this Fund's loans to the Sudan were for the transport/communication sector with 4.4 m. K.D. (equivalent to £S.5.28 m.) granted on behalf of El Rahad project and were partly allocated for surfacing the road from Medani to El Rahad and partly for building several feeder-roads inside the project itself. The latter roads were complementary to El Rahad project and were vital for its successful completion.

The Arab Fund charged interest rates on long-term development loans that ranged between 4 and 6 percent. A glance at the interest rates that were being charged during the period 1973-77 reveals that the Arab Fund charged 6 percent on most of its loans. Table 7.14. shows that the Arab Fund charged the Sudan a 4 percent flat rate on all loans. The Sudan had been grouped by this Fund as one of the least developed Arab countries which included Somalia, the Yemen Arab Republic, the People's Democratic Republic of Yemen and the Islamic Republic of Mauritania. These relatively poorer countries received 43.3 percent of

the total amounts of loans that was extended by the Arab Fund in 1976.[16] It can easily be discerned from the same source that the countries that were classified as 'least developed' were normally charged a 4 percent interest rate (being the lowest interest rate the Arab Fund ever charged) on the Fund's loans. This does not imply that the other 'relatively better off' countries were necessarily charged the highest rate of 6 percent since Egypt was also charged a similar rate (that is, 4 percent). However, special considerations might have been applicable to Egypt because of the circumstances that surrounded its economy at that time.

The Arab Fund and the Kuwait Fund were co-financing Sennar/ Damazin highway - which was estimated to cost more than £S.30 million - by providing all its foreign exchange requirement in addition to an almost one-third of the local currency component of the total cost leaving the remaining part for the 'Roads and Bridges Public Corporation.'[17] This was only one example of the practice of co-financing between different aid donors. Co-financing however does not necessarily have to be only among regional multi-lateral and bilateral lending agencies but usually includes international agencies and other donors outside the specific region. Anyway, this is not peculiar to certain Development Funds but is applicable to almost all donors who normally seek co-financing and technical co-operation from other donors in order to ensure the implementation of the specific project or programme in accordance with the initial projection by the availability of adequate and continuous financial support. Such arrangements should contribute to the completion of the particular projects as scheduled and so might

help in avoiding debt service difficulties, if the project is of a direct yield nature. The approach of co-financing is quite common in the Sudan particularly in relation to the large-scale agricicultural and infra-structural development projects.

Finally, the Arab Fund, in addition to the provision of loans to finance different development projects, also extends technical assistance in co-operation with international agencies for the pursuance of feasibility studies in various fields of national and regional importance. An example of such practices was the 'Basic Programme for Agricultural Development in the Sudan' which was produced in collaboration with international agencies and foreign private organizations involved in agricultural and related-activities development in the Third World countries and the Sudanese authorities.

7.4. The Basic Programme for Agricultural Development in the Sudan 1976-1985.[18]

This important study of the agricultural resources of the Sudan was undertaken under the technical assistance programme of the Arab Fund. As the Fund's 1975 Annual Report had put it:

> "the Sudan was chosen by the Arab Fund as the subject of an intensive study aimed at formulating a joint Arab effort for agricultural development and investment. This choice was influenced by the fact that the Sudan has the most extensive, yet the least utilized agricultural resources of all Arab countries."

The 'Basic Programme' was primarily intended to clear the way for an effective Arab participation in the long-term agricultural development

of the Sudan. It was an integral part of the long-term 18-year comprehensive plan for socio-economic development of the Sudan and had reflected the priorities set in the 6-year Plan. It pledged to achieve two main objectives:- First, the achievement of self-sufficiency in basic food-stuffs and consumer goods for the Sudan. Second, to turn the Sudan into a net exporter of certain basic food-stuffs such as sugar and wheat. The whole programme was thought to take 25 years to complete but the crux of the strategy lay in the first 10 years' achievement which was composed of 100 projects in crop and forestry production, livestock and fishery, agro-allied industries, transport, water resources, electric power and the supporting infrastructural projects and services.[19]

As can be seen from table 7.15., the 'Basic Programme' was composed of two broad sets of development projects - one was direct-productive investment in agriculture, agro-related industries and transport and the other was the necessary infrastructure. The 'Basic Programme' recommended that a substantial part of the total projected investment should be directed to 'commercially viable' projects which included the production of basic food-stuffs and the establishment of processing industries particularly for the production of edible oil, kenaf (similar to jute), cement and chemicals. It also included the development of livestock-raising and the establishment of the related industries. Investment in the infrastructural type of projects constituted just over one-quarter of the total capital requirement that was estimated for the whole Basic Programme. The foreign exchange component of the Basic Programme was calculated as 65 percent of the total amount of investment

envisaged to take place during the 10 years implementation period. Sources of financing were to include private foreign capital, but there was greater emphasis on loans (in particular soft loans) as can be seen from table 7.16., which shows that about one-quarter of capital investment was envisaged to be in a form of equity capital participation in the commercially-viable part of the Basic Programme whose finance would, almost, be shared between equity participation and conventional loans. In order to ensure sustained flow of the substantial financial resources deemed necessary for the implementation of this Programme, the total investment package should prove to be economically viable.[20] Therefore, a deliberate balance ought to be maintained between the commercially-viable investment that required equity capital and conventional loans and the infrastructural development that required concessionary financing in form of soft loans and grants.

Table 7.17. shows that crop production constituted one-third of the total cost of the Basic Programme (only £S.2 m. for forestry development). This included sugar and other basic food-stuffs production schemes that were throught to be crucial in the drive to achieve self-sufficiency. The transport sector would secure about one-fifth of the total capital investment (13.3 percent of investment in this sector was regarded as 'commercially-viable investment). More than 90 percent of the capital investment in the industrial sector was planned to be in 'commercially-viable' projects.

The successful implementation of the Basic Programme would demand two important pre-requisites of an institutional nature:- First,

investment promotion laws were required to encourage the participation of foreign capital in the financing of the proposed development projects. Such laws were already in existence for industry before the publication of the Basic Programme.[21] A law to encourage investment in agriculture was, for the first time, enacted in 1976.[22] These promotion laws primarily intend to protect foreign capital against nationalization or confiscation and to provide investors with state's guarantees in case of liquidation of business. They also provide a favourable treatment in tax levies and duties. Second, as recommended in the Basic Programme, the establishment of an institutional authority (supported by the Arab countries) primarily to ensure the implementation of the former, and also other similar programmes in member countries as might be agreed upon, was deemed necessary. This institutional body was termed 'The Arab Authority for Agricultural Investment and Development'. Its purpose, set out in its charter, was expressed as follows:-

> "This Authority embodies the joint Arab economic effort aimed at an optimal utilization of Arab agricultural resources, enhancing the agricultural production capabilities of the region, meeting a greater proportion of the food security requirements of the Arab World, and promoting economic integration between its various parts." [23]

Thirteen Arab countries have, so far, subscribed in varying amounts to the Authority's initial capital of 150 m. K.D. (equivalent to £S.180 m.)[24] The Authority had then undertaken to help the Sudan in funding its agricultural development programme with long-term loans that should not cause debt-servicing problems.[25] The financing of the Basic Programme was not to be confined to the Arab countries alone, but was

to include international bilateral and multi-lateral agencies and private foreign capital. International participation had been seen as an essential ingredient to the successful implementation of the Basic Programme because of the need for managerial and technical assistance in addition to that for finance.

However, the success of the Authority in implementing the 'Basic Programme' will certainly depend on its ability to mobilize the necessary financial support and to acquire the required technology. Part of the problem which the Basic Programme sets itself to tackle may prove to be a considerable constraint to complete it within the planned period, plainly, the question of absorptive capacity and the capability of the existing infrastructural facilities pose difficulties, particularly in the initial stages of its implementation. "Also the sudden influx of capital into the country could result, at least in the short-run, in significant inflationary pressures for the national economy."[26]

7.5. General Remarks and Evaluation

Traditionally, the principal sources of foreign aid to developing countries have been the advanced countries of the world. However, the last few decades witnessed the emergence of certain developing countries as exporters of large quantities of oil which eventually enabled them to accumulate an increasing amount of capital. These rich developing countries have accepted their moral obligation to assist the relatively poor ones by extending soft loans and grants to support the latter's development programmes and to relieve the growing pressure on their

balance of payments. A new source of foreign aid has thus emerged in the rich developing countries which are primarily oil exporters. Similar to the conventional sources of aid, it involved the extension of funds through the channels of the existing international multi-lateral agencies, regional development banks which were specially established for such purposes and on bilateral basis from both governments and their official development agencies.

The current terms of bilateral aid from the oil-rich developing countries are, in fact, different in many respects from their counterpart in the advanced countries: (i) Since the former countries are, at the moment, embarking on long-term development programmes, they themselves need to purchase the necessary capital goods and technology from the industrialized countries. This implies that a loan from one of these countries to a developing country can hardly be tied to purchases from the donor's own markets. This is generally true with regard to capital goods imports. Therefore, the extra cost of tied aid incurred by the recipient does not exist in the case of aid from these countries. This does not necessarily mean that these donors normally extend development assistance and other funds without being concerned about their end-use and their over-all development impact on the recipient economies. However, these countries provide project-tied loans in a way similar to the practices of the developed countries. (ii) Most bilateral aid programmes are confined to specific regions, for instance, the Islamic, the Arab and the African countries. Globally, this means that certain developing countries are likely to acquire more aid funds

than others. Of course, this takes place in accordance with historical and political factors and presumably in the interest of long-term regional integration. The latter is clear in the case of loans from the Arab Fund for Economic and Social Development, which tends to favour those projects which would eventually benefit more than one of its members particularly inter-countries transport and communication projects. (iii) Developed countries have established institutions and administration systems to run their foreign aid programmes while the major oil-exporting countries have only recently been involved on significant foreign aid programmes. Some of the newly emerging donors have yet to develop satisfactory criteria and administration procedures for aid provision. (iv) Some of these oil exporting countries have already established autonomous development agencies in addition to direct government-to-government dealings. In addition to channelling public funds, the former are also designed to encourage the involvement of private entrepreneurs in the development process of those countries which receive loans from these development agencies. Also, these Funds tend to co-ordinate their assistance with those international agencies involved in the development programmes of the Third World. This practice assumes particular importance because of the need for foreign technical expertise by the recipient countries and also the desire to ensure the provision of the required complementary inputs. This may result in a development fund financing the purchase of capital goods from a third party. However, the provision of capital goods may also be wholly or partly financed by a loan or grant from the government of the country where these goods originate on a source-tied type of loan,

or the 'developing donor' may specify the source of capital goods supply, for any one of a variety of reasons which have nothing to do with the recipient country. These reasons range from the desire to mobilize support of developed countries which may only be by tied-loans and the willingness of the donor country to make the recipient to purchase the necessary technology from a particular source.

Generally speaking, the practices and the lending operations of the different Arab Development Funds reflect most of the above characteristics. Above all, the emergence of these Development Funds had provided the Sudan and certain other developing countries with an increasingly important source of development finance and general financial support. Loans from these funds had been extended to almost all economic activities in the Sudan with special emphasis on transport and agro-allied industries. These loans added to the stream of foreign capital to assist the country in achieving its objectives of self-sufficiency in basic food-stuffs and the other necessary consumers' goods. The suggested long-term development strategy emphasizes the importance of exporting the excess of these products and goods particularly to the Arab markets to meet a significant proportion of their growing demand in basic food-stuffs such as vegetables, meat, edible oil, wheat, sugar, rise ... and perhaps some other consumer goods such as textiles. These arguments are among the main economic factors which draw forth an increasing Arab participation in the economic development of the Sudan.

The impact of the relatively growing size of Arab capital investment on the development strategy of the Sudan is clearly evident

in many ways: (i) The possibility that the country can acquire foreign capital from these countries in addition to the traditional donors has led the country to embark on large-scale agricultural development projects with emphasis on the agricultural-related industries. The establishment of such projects requires a relatively high foreign capital input and this may only be possible by joint-ventures between two or more donors and participants. Right from the beginning, the realities of the economic situation in the Sudan had call for more basic infrastructure which was either inadequate or completely lacking. However, the general economic policy of the government had been to carry out the whole programme simultaneously in the sense of speeding up the provision of some basic infra-structural facilities and at the same time embarking on the suggested development projects. Such a type of development strategy may frequently suffer from the adverse impact of an inadequate physical infra-structure on the development projects. Perhaps the choice of such an approach to development had been in response to an anticipation of a substantial foreign support in particular from the different lending agencies in the oil-rich Arab countries. (ii) The availability of loans from the Arab Funds may attract more international participation in the development programme of the Sudan. An example of the increasing non-Arab foreign participation is the Kenana sugar plantation project and work on the Junguli Canal. Both of these projects are anticipated to mark a major developmental breakthrough in the Sudan. (iii) The 1970's witnessed the construction of a number of modern hotels in Khartoum. The capital which has been invested in these and other similar activities has mainly

come from Arab countries in joint-ventures with the Sudanese government and/or domestic entrepreneurs. (iv) The geographical importance of the Sudan to both the Middle East and Africa has enabled Khartoum to develop the reputation of a financial centre, for example, the Arab-African Development Bank is located in Khartoum. (v) These developments have forced the Sudanese authorities to develop the activities of its own domestic financial agencies (such as the Sudan Development Corporation) in order to facilitate the process of channelling foreign funds into the different investment outlays. The development of these internal agencies also helps to raise the level of domestic resources' contribution to development financing.

These developments illustrate the importance of the growing Arab Funds' participation in financing the development programme in the Sudan and the implications of that on the development path of the country. The emergence of these funds has, indeed, provided the Sudan with an opportunity to acquire additional foreign capital and to diversify the sources. The co-ordination between these Development Funds and international multi-lateral agencies as well as the sources of capital goods supply may also prove to be of great benefit to the long-term development programme. At the least, it may help to ensure a satisfactory implementation of projects and to reduce the impact of unanticipated bottlenecks that may completely halt progress on any project(s) or programme(s). Finally, the country has, for the first time, access to borrowing in international capital markets on guarantees from these countries similar to the 200 m. dollars Euro-dollar loan that

is guaranteed by the Saudi Monetary Authorities.

The following are the prime motives of Arab capital investment in the Sudan and the main difficulties which it faces:- (i) The Sudan possesses vast unused land as was broadly described in the Basic Programme for Agricultural Development. Therefore, the Arab Funds have found an investment opportunity for parts of their considerable funds. (ii) With respect to the present economic situation of the country there are many obstacles to develop. Chief among these is the transport and communication problem. The difficulties caused by the inadequacy of the transport and communication facilities underline a general constraint to development in the Sudan. Consequently, a considerable part of Arab capital is directed to that sector. (iii) The Arab Funds rely on foreign experts to pursue the necessary feasibility studies in co-operation with international agencies (such as UNDP) although their own technical staff is increasing its participation in such field missions. However, the lack of co-ordination between the different parties involved in such studies may, in some cases, delay the final agreement on a given loan. (iv) The lack of complementary finance has been one of the main factors that led to an accumulation of undisbursed balances on behalf of certain projects and/to renegotiation with the donors to increase the size of a particular loan because of the rising cost of a particular project. However, this has been more evident on the side of domestic currency counterpart cost borne by the Sudanese authorities because of liquidity crises.

Although the terms of loans from the different Arab Funds were

diverse, they also varied with respect to the beneficiary activities. For example, the Kuwait Fund charged a flat rate of 3 percent on all loans to the agricultural sector in contrast to loans for industrial development which carried a 4 percent flat rate charge. The cumulative terms of all the loans from the four Arab Development Funds that were examined in this chapter show that the average interest charges ranged between 2 and 4 percent per annum with about 20 years maturities and an average of 4.5 years grace periods. These terms lie well below commercial borrowing but at the top of the average terms of loans from international multi-lateral agencies and developed market economies (see chapter 6 for further comparisons in this connection).

The main question is whether it is desirable for the Sudan to depend so heavily on borrowing from the oil-exporting Arab countries rather than to put more effort in to acquire more foreign aid from the other sources. In any case, it is certainly undesirable for the Sudan to rely so heavily on one such source of foreign finance and hence to lose the financial and most importantly, the technical contribution which accompanies the traditional sources of aid. Most of these Arab Funds provide loans on bi-lateral basis. This form of aid is particularly prone to discontinuity. On the other hand, the diversity of foreign aid sources could provide the Sudan with an opportunity to finance both the infra-structural and the directly productive parts of its development programme. Also this could enable the country to reduce the adverse impacts on the development programme arising from the inavailability of imported and other complementary inputs by seeking the participation of

more than one donor in the finance of large-scale projects.

Loans and grants provided by the Arab countries to the Sudan should be seen in connection with a desirable aim to achieve integration between all the Arab countries. The Sudan, with its vast unutilized natural resources, came to be the focus of these countries primarily as a potential supplier of agricultural products and related food items. This, in turn, had had a direct impact on the formulation of the long-term development strategy of the country in the sense of an 'over-emphasis' on large-scale mechanized agricultural projects primarily designed to raise the present low levels of Sudanese exports to these countries. These types of projects which have been chosen as the only effective method to bring vast areas of land under cultivation on a modern basis, are capital-intensive ventures with a relatively high foreign exchange component. Unless the future amounts of aid to the Sudan are therefore considerably increased, most of the incoming aid could be easily absorbed by these projects leaving very little for the other equally important developmental activities.

Notes and References

1. The Industrial Survey 1970/71, Vol. I, Department of Statistics, pp.347-8. It is reported that West Germany is the major single contributor to the manufacturing sector, then, Kuwait, Britain, Yugoslavia and the Soviet Union.

2. The Agreement to establish the Arab Fund for Economic and Social Development (1968). Reproduced in Demir, S. (1979); Arab Development Funds in the Middle East, Pergamon Policy Studies, Pergamon Press, pp.81-96.

3. Shihata, I. and Mabro, R. (1979); The OPEC Record, World Development, Vol. 7, No. 2, pp.161-72.

4. The Kuwait Fund for Arab Economic Development, Annual Report 1974/75, Kuwait, p.3.

5. Demir, S. (1979); op.cit., p.23.

6. For example, the loan which was extended to the agricultural sector in 1976 was reported to be bearing a 2.5% interest charge. See the Bank of Sudan Annual Report, 1967, p.65.

7. The Bank of Sudan 17th Annual Report 1976, p.45.

8. The Kuwait Fund Annual Report, 1976/77, p.32.

9. The Abu Dhabi Fund for Arab Economic Development, Annual Report 1977, Abu Dhabi, United Arab Emirates, p.14.

10. Demir, S. (1979); op.cit., p.38. This justification was presented in response to a question put to the Head of the Fund's Research Department. However, the Author himself thought of this approach to aid as part of traditional attitudes of multi-lateral agencies which primarily focus on financing infrastructural development projects.

11. The Saudi Fund for Development, 1st Annual Report (March-July 1975), Riyadh, p.8.

12. Demir, S. (1979); op.cit., p.40.

13. White, J. (1970); Regional Development Banks: A Study of Institutional Style, ODI, London, p.26.

14. Article II of the Agreement to establish the Arab Fund for Economic and Social Development, Reproduced in Demir, S. (1979); op.cit., pp.81-96.

15. The Arab Fund for Economic and Social Development, Annual Reports, 1975-76.

16. Ibid., Annual Report 1976 under the heading 'Lending Operations'.

17. The Arab Fund Annual Report 1976; The Kuwait Fund Annual Report 1976/77 and the 6-Year Plan (1977/78-1982/83), op.cit., pp.122-68.

18. The Basic Programme for Agricultural Development in the Democratic Republic of the Sudan (1976-85) was formulated under the auspices of the Arab Fund for Economic and Social Development as part of its feasibility studies programme.

19. The Basic Programme for Agricultural Development in the Democratic Republic of the Sudan (1976-85): Summary and Conclusions, the Arab Fund for Economic and Social Development, Kuwait, p.22.

20. Ibid., p.28.

21. Organization and Encouragement of Investment in Economic Services Act 1973 and the Development and Encouragement of Industrial Investment Act 1974.

22. The Promotion of Agricultural Investment Act 1976.

23. The Arab Fund for Economic and Social Development, Annual Report 1976.

24. Salacuse, J.W. (1978); The Arab Authority for Agricultural Investment and Development: A New Model for Capital Transfer in the Middle East, Journal of World Trade Law, Vol. 12, No. 1, pp.56-66.

25. Caplan, B. (1978); Sudan - Acid Test for Arab Investment, The Banker, Vol. 128, No. 623, p.35.

26. Salacuse, J.W. (1978); op.cit., p.65.

TABLE 7.1

Sectoral and Geographical Distribution of the Kuwait Fund Loans - January 1962 to June 1977, (Percentages)*

Country Groupings	Agriculture	Transport	Electricity	Industry	Total	% of Grand Total
Arab	23.5	32.6	17.5	26.3	100.0	69.4
African	31.8	25.3	32.2	10.7	100.0	9.6
Asian	13.6	9.8	58.5	18.2	100.0	20.7
European**	-	100.0	-	-	100.0	0.3
% of Grand Total	22.2	27.4	27.4	23.1	100.0	100.0

Source: The Kuwait Fund for Arab Economic Development, Annual Report 1976/77, Kuwait, table C, p.101.

* Percentages may not add to 100 because of roundings.

** The two European countries that benefited from the scope widening of the Fund's activities are Malta and Cyprus.

N.B. The total lending amounted to about 435 m. K.D.

TABLE 7.2.

The Main Recipients of the Kuwait Fund's Loans as at June 1977, (Percentages)

Countries	Egypt	Sudan	Morocco	Jordan	Tunisia	Total
% of Total Loans	19.4	14.9	10.9	10.8	10.5	66.5

Source: The Kuwait Fund for Arab Economic Development, Annual Report 1976/77, Table D, p.102.

TABLE 7.3

Sectoral Distribution of the Kuwait Fund's Loans to the Sudan as at June 1977, (K.D.m.)

Sectors	Amounts	Percentages
Agriculture	20.310	45.3
Transport	16.000	35.6
Industry	8.570	19.1
Total	44.880*	100.0

Source: As for Table 7.2

* Does not include 0.4 m.K.D. as technical assistance.

(£S.1 = 1.2 K.D.)

TABLE 7.4

Project Classification of Loans from the Kuwait Fund to Individual Sectors, (KD.m.)

Sectors & Projects	Date	Amount	Interest Charges	Maturity Periods	Grace Periods
Agriculture					
Agricultural development	1967	4.21	3.0	21.3	2.8
Mechanized Farming Corporation	1972	1.60	3.0	24.2	4.2
El Rahad project (Phase I)	1973	3.30	3.0	30.0	4.5
El Rahad project (Phase II)	1974	11.20	3.0	31.0	5.5
Industry					
El Girba sugar factory	1965	1.67	4.0	14.4	2.4
North-West Sennar sugar project	1973	4.50	4.0	16.0	4.0
The Industrial Bank	1975	1.50	4.0	16.0	4.0
Feasibility Studies	1976	0.90	1.5	39.0	9.0
Transport					
Sudan Railways	1962	7.0	4.0	15.7	3.7
Sennar/Damazin Road	1977	9.0	3.0	20.0	5.3

Source: The Permanent Mission of the State of Kuwait to the United Nations, Press Release No. 2/77, Reproduced in Demir, S. (1979); Arab Development Funds in the Middle East, Pergamon Policy Studies, Pergamon Press, Table 1.1, pp.10-16.

TABLE 7.5

Sectoral Classification of the Abu Dhabi Fund's Loans, 1974-77

(Percentages)*

Sectors	1974	1975	1976	1977	% of Total
Agriculture	8.8	22.9	14.5	-	9.7
Transport	5.5	2.9	9.3	35.8	16.9
Electricity & Water Supplies	39.0	74.3	26.1	29.7	34.5
Industry	26.3	-	43.9	34.5	33.3
Services**	20.3	-	6.1	-	5.6
Total	100.0	100.0	100.0	100.0	100.0

Source: The Abu Dhabi Fund for Arab Economic Development, Annual Report 1977, Abu Dhabi, table I, p.90.

* Totals may not add to 100 because of roundings.

** Services include housing, tourism, etc. which are reported under separate headings.

TABLE 7.6

The Main Recipients of the Abu Dhabi Fund's Loans as at end -1977 (Percentages)

Countries	Egypt	Bahrain	Sudan	Jordan	Morocco	Syria	Total
Percentage Share	20.8	17.2	10.7	9.9	8.6	8.4	75.6

Source: As that for Table 7.5, table 3, p.92.

TABLE 7.7

Project Classification of the Abu Dhabi Fund's Loans to the Sudan and their Terms (U.A.E. Dirhams m.)

Beneficiary Sectors and Projects	Date	Amount	Interest Charges	Maturity Periods	Grace Periods
Agriculture					
South Darfur develop. project	1976	(12.1)* 16.5	3.0	20.0	5.0
Industry					
Haj Abdulla spinning mill	1976	(58.6)* 80.0	4.5	13.0	3.0
Transport					
Sudan Railways	1977	(29.3)* 40.0	3.0	20.0	4.0
Grand Total and Average Terms		(100.0) 136.5**	3.5	17.7	4.0

Source: Bank of Sudan Annual Report 1976 and the Abu Dhabi Fund Annual Report 1977, p.33.

* Refers to the percentage share of each sector.

** Equivalent to £S.10.92 m.
(£S.1 = 12.5 U.A.E. Dirhams).

N.B. U.A.E. = United Arab Emirates.

TABLE 7.8

Distribution of the Saudi Development Fund's Loans by Regions, 1974/75 - 1976/77 (Percentages)*

Regions	1974/75	1975/76	1976/77
Africa	100.0	28.2	41.5
Asia	-	71.8	58.5
Total	100.0	100.0	100.0

Source: The Saudi Development Fund, Annual Reports for 1974/75 - 1976/77.

* Includes loans signed during the specific year.

TABLE 7.9

The Main African Countries which received Loans from the Saudi Fund during 1976/77 (Percentages)

Countries	Egypt	Sudan	Ghana	Cameroon	Total
Percentage Share	24.7	17.8	16.0	14.8	73.3

Source: The Saudi Development Fund, Annual Report 1976/77.

TABLE 7.10

Project Classification of the Saudi Development Fund's Loans to the Sudan (S.R. m.)

Beneficiary Sectors and Projects	Date	Amount	Interest Charges	Maturity Periods	Grace Periods
Agriculture		(43.5)*			
El Rahad project	1975	98.00	N.A.	N.A.	N.A.
Transport					
Haya/Kasala road	1976	91.78	2.0	20.0	5.0
Port Sudan Airport	1976	35.30	2.0	20.0	5.0
Grand Total and Average Terms		(100.0) 225.08**	2.0	20.0	5.0

Source: The Saudi Development Fund, Annual Report 1976/77 and Bank of Sudan Annual Report 1976.

* Refers to the percentage share of each sector.

** Equivalent to £S. 22.5 m.
(£S.1 = 10 S.R.)

- S.R. stands for Saudi Rials.

- N.A. means Not Available.

TABLE 7.11

Distribution of Arab Funds' Loans to the Sudan by Beneficiary Sectors as at end -1977 (Percentages)

Fund's Name	Agriculture	Industry	Transport	Total	Total Amount in £S.m.
The Kuwait Fund	45.3	19.1	35.6	100.0	53.90
The Saudi Fund	43.5	-	56.5	100.0	22.50
Abu Dhabi Fund	12.1	58.6	29.3	100.0	10.92

Source: Tables 7.3, 7.7, 7.10.

TABLE 7.12

Distribution of Loans from the Arab Fund by Beneficiary Sectors as at end -1977 (Percentages), (loans to all countries)

Beneficiary Sectors and Activities	% Share
Electricity and Water Supplies and Sewerage	39.0
Transport, Communications, Gas and Oil Storage	36.8
Manufacturing Industries	14.8
Agriculture and Settlement	9.4
Total*	100.0

Source: The Arab Fund for Economic and Social Development, Annual Report 1977, Kuwait, Table 2.

* The total amount of all loans is 295.3 m.K.D.

TABLE 7.13

The Major Recipients of Loans from the Arab Fund as at end -1977 (Percentages)

Countries	Egypt	Sudan	Morocco	Yemen Arab Republic	Syria	Total
Percentage Share	23.0	11.2	9.5	9.4	8.6	61.7

Source: As for table 7.12

TABLE 7.14

Project Classification of the Arab Fund's Loans to the Sudan and their Terms, (K.D.m.)

Projects	Date	Amount	Interest Charges	Maturity Periods	Grace Periods
Gadarif /Kasala Road	1974	8.0	4.0	20.0	6.0
Telecommunic-ations	1975	4.8	4.0	20.0	4.0
El Rahad project roads	1975	4.4	4.0	20.0	5.0
Sennar/Damazin road	1976	11.0	4.0	21.0	6.0
Sudan Railways	1977	5.0	4.0	21.0	4.0
Grand Total & Average Terms		33.2*	4.0	20.4	5.0

Source: The Arab Fund for Economic and Social Development, Annual Reports 1973-77.

* Equivalent to £S.39.84 m.

TABLE 7.15

A Summary of the Contents of 'the Basic Programme' for Agricultural Development in the Sudan, 1976-85, (£S.m.)

	Nature of Projects	Total Cost	Cost Components** Foreign	Local	No. of Projects
1	Commercially viable investments	1043 (45.6)*	632 (60.6)	411 (39.5)	31
2	Agriculture and related activities	573 (25.1)*	356 (62.1)	217 (37.9)	25
3	(i) Direct revenue producing infra-structure	350 (15.3)	271 (77.4)	79 (22.6)	20
	(ii) Non-direct revenue producing infrastructure	261 (11.4)	179 (68.6)	82 (31.4)	14
	Sub-Total 3 (i and ii)	611 (26.7)*	450 (73.6)	161 (26.4)	34
4	Institutional support	60 (2.6)*	48 (80.0)	12 (20.0)	10
	Grand Total	2287 (100.0)	1486 (65.0)	801 (35.0)	100

Source: The Arab Fund for Economic and Social Development (1976); The Basic Programme for Agr. Development in the Democratic Republic of the Sudan, 1976-85: Summary and Conclusions, Kuwait, Appendix 3, pp.32-33.

* Percentages of the Grand total.

** Figures between brackets are the percentage distribution of the total cost of each set of projects between foreign and local components.

TABLE 7.16

Projected Types of Financing for 'the Basic Programme...'

(Percentages)

	Loans				
Type of Financing	Soft	Conventional	Equity	Grants	Total
% Share	50.0	24.8	23.6	1.6	100.0

Source: As for table 7.15.

TABLE 7.17

Distribution of "the Basic Programme's" Capital Investment among the different Economic Activities, (£S.m.)

Economic Activities	Total* Cost	Cost Components** Foreign	Local	Commercially Viable Invest.
Crop and forestry	761 (33.3)	447 (58.7)	314 (41.3)	385 (50.6)
Transport	474 (20.7)	358 (75.5)	116 (24.5)	63 (13.3)
Livestock & fisheries	409 (17.9)	230 (56.2)	179 (43.9)	240 (58.7)
Agro-industries	383 (16.8)	259 (67.6)	124 (32.4)	355 (92.7)
Agricultural & supporting services	138 (6.0)	105 (76.1)	33 (23.9)	-
Water & power resources	122 (5.3)	87 (71.3)	35 (28.7)	-
Total	2287 (100.0)	1486 (65.0)	801 (35.0)	1043 (45.6)***

Source: As for table 7.15, Appendix 4, pp.34-42.

* Figures between brackets are percentages of the total.

** Figures between brackets are the percentage distribution of the total cost of each economic activity between foreign and local components.

*** As percentage of the total cost.

CHAPTER EIGHT

The Impact of Foreign Aid on Domestic Savings: An Application of the Weisskopf Behavioural Model to the Sudan

8.1. The Weisskopf Behavioural Model[1]

Weisskopf has developed a model to test the hypothesis that the level of domestic savings in the developing countries is behaviourally related not only to the level of national income but also to the level of net foreign capital inflow. It is a simple aggregative model of an economy, and is based on standard macro-economic relationships to evaluate the role of foreign capital in economic development. The behavioural equation is specified as :

$$S = a + bY + cF + dE + u$$

where S represents ex-ante gross domestic savings as distinct from ex-post savings. The former is the level of domestic savings that is potentially available to the economy but not necessarily always realized. Ex-ante and ex-post domestic savings can only be equalized when a saving constraint is active; and only then can the behavioural savings function be identified from observed time-series data.[2] Y, F and E represent GDP, foreign capital inflow and export proceeds respectively. b, c and d are the marginal propensities to save out of Y, F and E respectively and u is the stochastic term.

The described model assumes that there is a priori knowledge that the estimated correlation coefficients b and d are non-negative

(i.e. $b \geqslant 0$ and $d \geqslant 0$) and that c is non-positive (i.e. $c \leqslant 0$). The restriction imposed on the value of the coefficient c was basically justified by the reason that "if external resources are to be used solely in order to augment investment, the rate of domestic savings remains unaffected by F, and c equals zero; but to the extent that the external resources are intended to augment consumption, c becomes negative".[3]

In addition to the introduction of foreign capital inflow as one of the determinants of gross domestic savings in a developing country, the model incorporates the export sector because, according to Weisskopf, of its critical importance to private savings and/or government revenues and the significant impact of these on the aggregate level of domestic savings. The main argument turns on the estimated value of the coefficient c, that is, that part of domestic savings which is explained by foreign capital inflow. A pooled regression analysis was carried out on 17 developing countries (see appendix 6) using standard UN data. The estimated equation was as follows:

$$S = a + \underset{(65.9)}{0.183Y} - \underset{(-5.3)}{0.227F} + \underset{(4.6)}{0.176E}$$

t-ratios are between brackets. In only eight countries was the negative value of c significant at the 5% level of significance. The values of R^2, $\bar{R}^2$ and the significance level for the above equation were not reported.

Since the values of the coefficients b and d were positive and that of c was negative, this was consistent with the <u>a priori</u> assumed

constraints on the values of each of these coefficients. The estimated value of the coefficient c indicated that F had an adverse impact on S. Specifically, a unit increase in F resulted in a 0.23 unit fall in S. Therefore, the proposition that 'foreign capital inflow supplants rather than supplements domestic savings' finds statistical support in Weisskopf's work.

As mentioned before, the above statistical tests were applicable only to those developing countries with an active savings constraint. In contrast, when a trade limit is dominant, foreign capital inflow should act to remove the constraints imposed on further investment by enabling the country to import more of the needed capital goods. The impact of foreign capital on ex-post domestic savings is, therefore, likely to be positive when a trade limit is dominant. However, the post-war experience of developing countries had shown that those which faced a savings constraint were more numerous than those which faced a trade limit.[4] Subsequently, Weisskopf concluded that most developing countries are unlikely to face an independent trade limit in the future. Accordingly, he cast doubt on the significance attributed to an independent trade limit to economic growth suggested by the two-gap analysis.

Weisskopf's empirical analysis leads to the inevitable conclusion that foreign capital inflow into developing countries is unproductive because it has a negative impact on domestic savings. This suggests that foreign aid - which accounts for the largest proportion of that capital inflow - should be terminated if it is intended

to raise the capacity of the recipient economy to mobilize domestic savings.

8.2. Domestic Savings in the Sudan

The Sudan was classified by the UN as one of the least-developed countries. Its per capita income for the years 1971/72 to 1974/75 respectively was £S.54.7, £S.60.0, £S.81.3 and £S.96.1.[5] The average national savings rates (table 8.1) for the Sudan were generally below the rates for comparable categories of countries. Table 8.1. also shows that while the average rates of national savings of developing countries were lower than those of advanced countries, the lower-income developing countries had the lowest rates of all. This suggests that there is a direct relationship between the level of GDP and saving rates. Although the average rates of the Sudan remained on the low side relative to other countries, 1970 was exceptional. As noted earlier, that year marked the beginning of the Five Year Plan which estimated that about half of the necessary development funds should come from domestic savings. Measures taken at that time, including nationalization, probably contributed to the rise in 1970 in the ratio of national savings to the GDP.

The size of national savings is partly determined by the success of official efforts to mobilize domestic resources to finance the development programme. To do this effectively requires the development of an efficient fiscal and financial system . The latter is composed of commercial, savings and specialized banks, post office saving schemes,

insurance companies and investment corporations. At present, there is an extreme concentration of these institutions in large urban areas while hardly any are found in some parts of the country.[6] A wider country coverage could help to raise the proportion of private savings and to encourage the rural population to deal with modern banks making it possible to mobilize small private savings. Domestic resources can also be mobilized by the state's encouragement and assistance to co-operative societies. In addition to the vital services they could provide to the community, the latter can also be very effective in attracting small savings.

In an attempt to mobilize more resources, some commercial banks have recently extended their services beyond the Sudanese borders to tap the resources of the emigrants working in the Arab countries. The state also encourages emigrant Sudanese to transmit their savings to the Sudan by offering higher exchange values for foreign currencies than the prevailing official exchange rates in addition to the existing 'nil-value' licence system.[7] Thence, the amount of inward private transfers of Sudanese working abroad increased from £S.2.1 m. in 1975 to £S.14.0 m. in 1977.[8] These added to domestic savings and contributed directly to foreign exchange reserves.

If savings through the budget are to be increased, efforts will have to be directed towards the reduction of lavish consumption expenditure and to reforming and raising the efficiency of the public revenue collecting bodies. In particular, the formation of a broader

taxation basis is necessary in that connection. Finally, an improvement in the performance of autonomous corporations is required so that they can, not only finance their own development plans, but also contribute surpluses to support other parts of the developed programme. In addition to that, the economy should gain an adequate degree of flexibility to transfer an increasing proportion of its savings into foreign exchange to pay for imports and also to service foreign debts.

The above considerations should be taken into account in interpreting the results of any econometric test on the determinants of domestic savings in the Sudan focusing on the impact of foreign capital inflow on the latter.

The following econometric test designed to determine the impact of foreign aid on domestic savings was carried out: a dominant saving constraint was assumed throughout the years 1966-77.[9] This assumption was based on the conclusions derived from the evaluation of the structure of the Sudanese economy in chapter 5 including the inability of fiscal measures to create sizeable budget surpluses over the past decade as well as the inability of existing financial institutions to mobilize a rising level of private savings for development purposes. Moreover, the lack of marketing boards to squeeze funds from agricultural husbandry which dominates the Sudanese economy is among the prime factors that have contributed to the present low level of national savings. The assumption of a saving constraint should not in any way be taken to indicate that the country's development progress is

hindered by shortages of domestic savings alone, but simply means that while both the shortage of saving and of foreign exchange pose limits on growth, the former was dominant during the period under consideration.

For calculation purposes, net foreign financial aid is defined as the annual gross receipts from abroad minus gross repayments of total debt service. Domestic savings are defined as gross domestic capital formation minus the deficit on the current account of the balance of payments. The period considered covers the second half of the Ten Year Plan (1961/62-1970/71) and the whole of the Five Year Plan period (1970/71-1974/75) plus the two years of the Interim Programme of Action (1975/76-1976/77). This period witnessed sharp fluctuations in the percentage ratios of net foreign financial aid to GDP as can be seen from table 8.2. In addition to the support of the development programme, foreign assistance was provided for other purposes, particularly to support the balance of payments and the ordinary budget.

8.3. The Statistical Results and their Interpretations

Domestic savings were regressed on GDP, net foreign financial aid and export proceeds. F represents net foreign financial aid and the other symbols represent the different variables as was stated earlier in this chapter. The regression analysis resulted in the following saving function for the period 1966-77:-[10]

$$S = a + \underset{(2.842)}{0.085Y} - \underset{(-1.112)}{0.209F} + \underset{(0.091)}{0.029E} \qquad R^2 \; 0.979 \qquad \bar{R}^2 \; 0.948$$

According to the above equation, there had been a negative correlation between S and F in the sense that a unit increase in the latter resulted in a 0.21 unit fall in the former. However, this estimate is not statistically significant.

The same analysis was pursued on only two independent variables (Y and F) eliminating E from the specified equation because of the insignificance of the value of its correlation coefficient in the above estimate and the fact that it is one of the components of GDP. The regression analysis produced the following result:-

$$S = a + \underset{(13.257)}{0.088Y} - \underset{(-1.597)}{0.220F} \qquad R^2\ 0.979 \qquad \bar{R}^2\ 0.953$$

According to the above estimate, a unit increase in F resulted in a 0.22 unit fall in S, but this is only significant at the 10% level. It became clearly evident that the inclusion of E in the first estimate did not significantly improve the explanation. For this reason, it would be appropriate to specify S in terms of Y and F only. But since the explanatory power of Y was quite significant, the inclusion of other independent variables (in this case F) did not improve the estimate.

We conclude from the above analysis that the proposition that the inflow of foreign aid into developing countries has a negative impact on domestic savings does not find statistically significant support for the Sudan. This means that we cannot infer causation between these two variables. The critics of foreign aid programmes produced similar statistical findings to substantiate their arguments that the former had

hampered the mobilization of domestic resources for developmental purposes. They suggested that the provision of foreign aid funds to the developing countries had distorted the process of economic development rather than supported it as should be the case. The adverse effects on the recipient economy would be reflected by the reduction of total domestic savings, by the accompanying distortion of development priorities, and by the persistence of unmaintainable patterns of consumption which are difficult to reverse. The ultimate outcome could be a delayed attainment of a self-sustained growth rate. In my view, any final judgement on these matters in relation to the Sudan should take into consideration the particular characteristics of the period under discussion and the end-use of foreign aid funds.

The period under review was characterized by a relative degree of political instability, ranging from a military take-over in 1969 to later armed confrontations between the new regime and the opposing political factions all of which had important economic repercussions. The structure of the economy was slightly altered in 1970 in favour of an enlargement of the public sector. At that time, the banking system was brought under public ownership and the insurance market was re-organized under five Sudanese companies. In addition, foreign trade in main products came under state control. The twelve-year period can be roughly divided into three more or less distinct economic phases: 1966-69, 1970-73 and 1974-77.

The first phase (1966-69) witnessed a relatively modest level of foreign aid inflow in the Sudan and was characterized by two main

features:- (i) The United States of American halted its aid programme to the Sudan because of the break in the diplomatic representation between the two countries and this reduced the total size of foreign assistance to the Sudan. (ii) The Sudan experienced an IMF stabilization programme to restore internal and external balances to the economy. The IMF extended a two-phase loan on condition that the government should take the appropriate measures to curb public expenditure and to reduce its borrowing requirements. This marked the first time that a major foreign loan was used for non-developmental purposes.

The second phase (1970-73) was characterized by a new regime coming to power, an increase of the state's grip on the productive sectors of the economy and a draft of a five-year plan resting on ambitious projections of both domestic savings and foreign aid. At the end of this phase, there was a significant change in the attitudes of the regime in international relations. The political instability that characterized this period had contributed to a relatively low level of foreign aid, which was at its ever lowest level in 1973.

The third phase (1974-77) started with the highest level of foreign assistance ever witnessed in the Sudan so far. 1974 was primarily characterized by a large balance of payments deficit. Among the measures implemented to reverse that situation was to obtain cash loans mostly from the Arab members of OPEC and for the first time the Sudan obtained a 200 million Euro-dollar loan. This high level of foreign aid coincided with lower levels of both export revenue and domestic savings than was in 1973. In fact a large proportion of aid

funds was used to finance imports. Though this trend did not continue during the rest of the period, the level of foreign aid remained well above previous years.

It can be seen, therefore, that the period under review was not characterized by a stable package of consistently operated policies which could be expected to have contributed to a systematic behaviour of both savings and foreign aid inflow, and henceforth a meaningful statistical relationship could be established between them. On the contrary, the inflow of foreign aid had been frequently interrupted by non-economic factors and its size did not follow a steady pattern. Sharp annual fluctuations occurred in officially reported aid figures making it difficult to establish any meaningful relationship between these and other variables.

Domestic savings originate from both public and private activities. During this period, the public sector had been involved in almost all productive economic activities and so its performance in this area had an important influence on the final outcome. More specifically, the level of national savings was largely determined by the success of government's efforts to create a considerable budget surplus. However, the ordinary budget surplus was less than 10 percent of total government revenue over the period under review as was revealed earlier in chapter 5. In this connection, the low productivity in the state-controlled agricultural, industrial and services activities had a considerable impact on the level of public savings.

In Papanek's[11] criticism of the hypothesis of Weisskopf and others about the impact of aid on recipients' savings, he pointed out that low-saver developing countries (i.e. those that save 9 percent of the their GDP or less) received higher levels of aid than that received by high-saver ones (i.e. those that savè 18 percent of their GDP or more) during the 1960's. Table 8.3. shows that although the Sudan was one of the exceptionally low-saver developing countries, according to Papanek's classification, its level of net foreign aid fell well below the average of the six low-saver developing countries. This supports the argument presented in our analysis of the overall position of aid in the Sudan; namely, that the country seemed to have received less aid throughout the specified period by comparison with similar developing countries. In this case, the criterion for comparison being the saving ratio to GDP and the specific comparison being with the average of six low-saver developing countries.

Papanek presented the above evidence to support his argument that although high levels of foreign assistance coincided with low levels of domestic savings in some countries, the causal relationship was rather that low levels of the latter caused high inflow of the former and not vice versa. More specifically, the statistical tests which produced a negative relationship between foreign aid and domestic savings should be seen in connection with the circumstances of the particular economy and the behavioural pattern of its national savings. The appropriate question should then be: had the low saver developing countries (which received a relatively higher level of aid than their

counterparts at high saving levels) shown signs of raising the levels of their national savings? Data provided by Papanek on South Korea - a country which received large amounts of aid - showed that its saving rate in the 1960's was substantially higher than that was in the 1950's. It seems by contrast that foreign aid inflow into the Sudanese economy was a direct response to low levels of national savings, but there was no causal relationship between these two variables as the statistical findings might indicate. However inconclusive these are, this in no way detracts from the importance of attempts to make a more effective use of foreign aid funds to supplement domestic resources.

There are a number of issues which have to be considered in relation to the Sudan:- (i) the size of aid in relation to GDP; (ii) the end-use of financial aid; (iii) the determinants of the saving function.

(i) The size of net foreign financial aid remained below 2 percent on average in relation to GDP during the period 1966-77 (see table 8.2.). This suggests that the Sudan did not receive relatively larger amounts of foreign assistance that could have a significant impact on the level of domestic savings. It is clearly evident from the statistical estimates that GDP had explained a considerably large proportion of domestic savings during the specified period. This suggests that other explanatory variables, such as the size of foreign aid, had little direct impact on the latter.

(ii) As was revealed in preceding chapters, aid was directed to finance development projects and to overcome certain immediate economic

difficulties. The latter included aid for the finance of the current account deficit and for domestic consumption purposes such as the 'anti-thirst campaign' and resettlement programmes. Even though parts of aid had been invested in sound development projects; the latter were either large scale agricultural projects with relatively long gestation periods or agro-related industries. In both of these cases, the ultimate impact on the economy was yet to be seen. In connection with the present statistical results, it should be borne in mind that the impact of the latter investments on savings could come through the eventual rise in the level of GDP, as the latter has been seen to be the major contributor to savings.

(iii) Savings in the Sudan were primarily determined by GDP, suggesting that any act of consumption was not necessarily an act of dis-saving as the simple aggregate income model would indicate. This could explain the negative correlation coefficient between savings and aid since parts of the latter were not, in any sense, directly related to the former. However, aid for consumption purposes could have long-term positive effects on development and could help to release domestic resources that would otherwise be redirected from the development budget to meet such consumption needs. Also, it cannot be too strongly emphasized that a stable economic system is a necessary condition for the mobilization of domestic resources for developmental purposes, and from this point of view, the contribution of consumption aid may, in a broader prospective, be invaluable.

To sum up, the regression analysis to determine the relationship between savings and aid produces a negative correlation coefficient between these two variables but it is statistically insignificant. It also shows that GDP is the prime determinant of savings in the Sudan. Hence, the statistical evidence is inconclusive to support the proposition that aid should be suspended either because it had not supplemented domestic savings at all or because it supplanted a proportion of it.

Notes and References

1. Weisskopf, T.E. (1972); The Impact of Foreign Capital on Domestic Savings in Underdeveloped Countries, JIE, Vol. 2, No. I, pp.25-38.

2. This was first suggested by Fei, J.C.H. and Ranis, G. (1968); Foreign Assistance and Economic Development: Comment, AER, Vol. 58, pp.908-10, and was adopted by Weisskopf (pp.31-2).

3. Weisskopf, T.E. (1972); op.cit., p.28.

4. Weisskopf, T.E. (1972); An econometric Test of Alternative Constraints on the Growth of Underdeveloped Countries, RE&S, Vol. 54, No. 1, pp.76-7. Out of a total of 44 developing countries, 23 showed a saving constraint and only 8 showed an active trade gap.

5. Department of Statistics, National Income Accounts and Supporting Tables, 1971/72-1974/75, Khartoum.

6. However, the Sudanese commercial banks have increased the number of their branches from 28 in 1960 to 96 in 1977. For further details see Ali, E.H. and Mirgani, H. (1978); The Role of the Banking System in the Economic Development of the Sudan ... , Bank of Sudan Research Department, Khartoum, table 1, p.36 (in Arabic).

7. This system was abolished in 1979 when it became clearly evident that it did not help importing goods deemed vital for the success of the development programme.

8. Bank of Sudan Annual Reports for 1976 and 1977.

9. This is also substantiated by the performance of the economy with respect to domestic counterparts of development expenditure projections during the Amended 5-year Plan (1970/71-1976/77).

10. A paper published after the completion of this work produced the following estimate of the saving function of the Sudan, which is similar to the findings in this chapter:-

$$S = 109.06 - \underset{(-2.32)}{0.34Y} + \underset{(1.89)}{1.19E} - \underset{(-0.24)}{0.53F} \qquad R^2 = 0.56$$

Accordingly, the authors concluded that "foreign capital inflows would appear to have a negative impact on the savings but the coefficient is not significant". p.144. For further details see the article by Henley, J.S. et al. (1980); Foreign Capital Inflows, Domestic Savings and the Price of Political Stability in the Sudan: Weisskopf revisited, Managerial and Decision Economics, Vol. I, No. 3, pp.138-49.

11. Papanek, G.F. (1972); The Effects of Aid and Other Resource Transfers on Savings and Growth in Less Developed Countries, EJ, Vol. 83, p.946.

TABLE 8.1.

Average National Savings as Percentage of GDP for Categories of Countries compared with the Sudan

Categories of Countries	1965	1970	1973
Industrialized Countries	22.8	23.2	23.8
Developing Countries	19.4	18.5	19.5
High-income Developing Countries	19.4	18.5	19.5
Low-income Developing Countries	12.6	13.1	12.8
African Countries	14.7	16.9	20.8
Sudan	9.5	16.8	11.9

Source: World Bank, World Tables 1976, John Hopkins University Press, Baltimore, pp.480-3.

TABLE 8.2.

Net Foreign Financial Aid as a Percentage of GDP in the Sudan, 1966-77

Years	% Ratios*	Increase or Decrease over the previous Year
1966	2.9	
1967	1.5	-
1968	0.9	-
1969	1.7	+
1970	0.5	-
1971	0.8	+
1972	0.9	+
1973	0.1	-
1974	6.8	+
1975	1.9	-
1976	1.2	-
1977	1.5	+
Period Average	1.7	

Source: Department of Statistics and Bank of Sudan Annual Reports 1966-77, Khartoum.

* Figures are to the nearest one-decimal point.

\- indicates a decrease

\+ indicates an increase

TABLE 8.3.

Savings and Net Aid Ratios:* A Comparison between some Developing Countries and the Sudan for the 1960's

Particulars	Savings	Net Aid
10 High-saver Developing Countries**	23.2	0.4
6 Low-saver Developing Countries**	4.3	7.8
Sudan***	8.8	1.8

Source: Papanek, G.F. (1972); The Effects of Aid and Other Resource Transfers on Savings and Growth in Less Developed Countries, EJ, Vol. 83, table V, p.946. For the Sudan see table 8.2.

* Percentage ratios of GDP

** Average ratios

*** Average ratio for 1966-69.

CHAPTER NINE

Towards an Effective Management of Foreign Aid Funds in Recipient Countries

The advocates of foreign aid usually recommend that part of such funds should be extended in the form of technical assistance which includes the training of personnel inside the recipient country and/or abroad, and seconding expatriates to make up for the short-term shortages in high-skill jobs and senior consultative and administrative posts. In the latter case, foreign expatriates might act as advisors on various issues. Enormous difficulties are encountered in estimating the appropriate size and form of foreign technical assistance programme for a given country. This basically originates from the inadequacy of information on the recipient country's manpower structure and composition on which its foreign requirement could be estimated. This issue has two dimensions: the administrative machine and the skill requirement. This chapter emphasizes the importance of establishing an effective development planning machine and in particular a foreign aid management system in a country which seeks significant foreign participation in its development finance. The next chapter will discuss the problems associated with manpower requirement and the role of technical assistance in this context.

9.1. The Dimensions of the Problem

Both donors and recipients of foreign aid recognize the necessity

of having a well-trained and a competent staff to assume the responsibilities of carrying out the development programme. This is partly reflected by the effectiveness and efficiency of the different institutional bodies involved in the various stages of the development process. The capacity and scope of the development planning machinery have a great impact on the various stages of a development programme; beginning with preliminary investigations and feasibility studies and ending up with completed projects. The scope of the development planning machine should therefore be broad enough to include specialists from the directly interrelated disciplines such as agricultural, industrial and transport economists, engineers, veterinarians ... etc. The final judgement on the effectiveness of the planning machinery will be broadly based on what it carries out in relation to what it is entrusted to do. Its functions differ among developing countries with mixed economies. They range from fully-fledged executive functions to a limited advisory role.

The following analysis is an attempt to formulate the requirements of an effective foreign aid management system in a developing country. As mentioned before, it is to be discussed in the general framework of a development planning machine. It is one of the aspects of foreign aid that has not been adequately treated in the literature, although of critical importance to the success of aid-financed activities.

Methods of project financing are, perhaps, one of the main problems that face the planning authorities in developing countries. This is because although resources are limited there are often political

pressures to formulate ambitious development programmes. In fact, such projections may be based on implausible assumptions about the future behaviour of the aggregate economic variables such as domestic savings, foreign trade, inflation and above all, the level of foreign capital inflow into the country. At the end of the plan period, the country may find that either the rate of fulfilment is below the projections or that development priorities have been distorted because certain variables had not responded favourably or some unforeseen circumstances surrounded the economy during the plan period, for instance, war.[1] Such discrepancies may also be due to the unreliability of some basic data or in some instances its absolute absence and so the projection is only an official "guess-estimate."

The projection of foreign resources requirement during a specified time period should be based on the size of the potential gaps between domestic resources that would be expected to be available for development financing and the total investment required for the achievement of a target growth rate. This also includes a projection of foreign exchange requirement and the anticipated proceeds from exports and other dealings with the outside world. If foreign capital inflow fills these gaps, foreign exchange itself should not be a constraint to achieving the target growth rate, if other predictions are correct. Considering the economic situation of individual countries and their level of development, the relatively poorer developing countries typically envisage that substantial proportions of foreign resources can be acquired on relatively soft terms and/or grants. Of course, the factors that practically influence the

magnitude of foreign participation in financing a development programme at a given time period are very diverse: ranging from economic and commercial considerations to political, historical and some other factors. But although the projection of foreign capital inflow might be based on reasonable assumptions on the impact of these variables on the economy, things may dramatically change. This is particularly relevant to countries with unstable economic systems.

Therefore, even though development programmes might have been formulated on sound economic bases and donors were willing to participate at the forecasted levels, the whole process may be disrupted by some exogenous variables that have no direct relevance to the development process itself. The successful completion of the development programme then depends on the ability of the country to reduce the adverse effects of these factors (for instance, the discontinuity of foreign support for a given project). This largely depends on the efficiency and capability of the development planning machinery, and in particular that dealing with foreign aid, to switch resources. In this connection it seems important to establish an autonomous administrative unit within the general framework of the planning body in order to more effectively mobilize foreign support for the country's development programme. Also in this connection, the maintenance of an up-to-date record on the particulars of foreign loans such as commitments, disbursement, arising debt-service obligations and the over-all position of outstanding foreign debt is vital for purposes of long-term planning, budgetary projections and balance of payments management. Such information is indispensable

for constructing a debt profile for the country, which is a tool with important practical uses.

The above analysis suggests the importance of establishing a central body that would be given responsibilities of seeking various sources of loans, negotiating loan terms, following-up disbursement and finally of monitoring debt-servicing. All this is vital since deficient information on foreign loans is likely to lead to unreliable projection of future inflow of foreign aid and debt service repayments, and certainly to unreasonable development targets. If one particular donor contributes significant proportions of the total foreign aid to a given country, then special administrative arrangements established as a result of mutual agreement between both sides may be appropriate. Such arrangements could facilitate the monitoring of aid programmes as is the case between Britain and Kenya.[2]

A development loan can be considered to pass through three main stages: negotiation, use and repayment. The last two stages may overlap, as will be seen later. The following paragraphs examine these stages, account the problems incurred during each of them and then focus on the implications of that on the effective use of foreign funds.

(i) After the necessary feasibility studies are carried out satisfactorily and the project is formulated into its final form (and its foreign exchange component had been determined), the first step is to seek firm commitments from potential foreign supporters. In most cases, the project itself would be formulated under the advice of foreign

experts and hence the potential donor (or group of donors) may have already been committed to provide technical assistance and part or all of its foreign exchange component. The stage of technical negotiations and the conclusion of the loan terms are normally the responsibility of the specific corporation in the case of further development in an existing establishment or of the administrative body of the new project. In general, this is the practice in the Sudan at the present time as far as public or publicly-guaranteed foreign loans are concerned. An important issue in this connection is to seek foreign sources of finance that are willing to extend their support on terms that are appropriate for the particular type of project.

(ii) The second and perhaps most important stage is drawing on the approved funds in accordance with the terms, conditions and time schedule that have been agreed. Drawings on a development loan are distributed over the implementation period of the project, and successive instalment drawing may be conditional on the completion of a certain phase. This may not be entirely true in the case of a loan which is wholly devoted to the purchase of basic capital goods to take place at the very start of the project. Even in such cases, however, capital goods may be required at different phases of the project implementation and each phase would depend on the completion of its predecessor.

During this second stage, a discrepancy between scheduled and actual drawings (commitments and disbursement) may take place if some unanticipated bottlenecks, such as the inadequacy of complementary

inputs or the inefficiency of other supporting sectors (for instance, transport), emerge. Such complications which lead to delays in completing the project will result in a growing size of undisbursed balances. Also, during this stage it is necessary to follow-up the utilization of foreign funds to ensure that they have been effectively used in accordance with the plan. This helps to avoid un-intended switching of foreign funds among the different requirements of a project and most importantly between different projects. During this phase, donors usually require regular 'progress reports' from the recipient country. Such reports can either come from the executing authorities, from foreign expertise or from the donors own representatives who can inspect the project sites and report to their governments or institutions. A satisfactory completion of a given project despite hindrances assists in developing a good reputation for the country concerned, and might encourage more donors to participate in future projects. Success will also have a positive impact on debt-servicing particularly in cases where projects are direct revenue-yielding. These are the situations where projects would either directly contribute to export revenues or substitute imports.

An effective and capable management during the implementation phase of a project is essential to ensure the continuity of resource supplies to the project by seeking alternative sources of financing if one or more complementary inputs were inadequate or that some donors fail to honour their commitments. Such management flexibility is crucial for successful completion of the project because resources may fall

below the required levels during implementation when substantial resources have already been spent on the particular project. Also - depending on the terms of individual loans - debt-service repayments may be due at a time when the project is yet to produce (if that is the case) and hence repayments will have to be arranged from other sources or perhaps by seeking new arrangements with the relevant donors.

(iii) The third and final phase in the story of a loan (not necessarily that of a project) would be when its instalments are repaid unless its altered terms do not require that. At the present time, the question of debt-servicing capacity of developing countries is one of the most important issues of foreign aid. However, 'the more disappointing the development experience is (projects failure), the more one can expect foreign debt crises'. Although this is generally true, in some cases difficulties in debt-servicing are caused by other factors such as the terms of the loans. But the success of any loan-financed project is normally partly a function of the over-all performance of the economy and however good in itself the management and performance of the particular project may be, it may not entirely succeed if the general performance of the economy is poor. As mentioned before, the management of the debt arising from loans to a given project must depend on the nature of that project, specifically on whether it is a direct revenue-yielding activity or not. In the latter case, other activities or sources would have to pay for servicing the arising debt.

If foreign aid-financed projects are administered and evaluated in the manner outlined above, the recipient country could achieve various

objectives:- (i) An indicative categorization of foreign loans' uses according to the nature of the projects and their present and potential contribution to the economy could be established. This will assist in finding donors' support for the different types of projects on the appropriate terms because individual donors may have an interest in certain types of development activities in developing countries. This would help in presenting the appropriate types of projects to the relevant donors. (ii) It would give indications of the magnitude of foreign indebtedness and the sectors and/or projects that are likely to contribute to annual debt-service repayments. It would also help to indicate the extent of the economy's capacity to use effectively and to service foreign loans, that is, the size of foreign indebtedness that the economy can accommodate without disrupting its development programmes. (iii) It would show the areas or activities where deficiencies have taken place and help to establish the factors behind that. This is one of the main ingredients in the attempts to avoid projects' failures and overcome these difficulties in future. (iv) Such scrutiny would result in keeping an up to-date and available record of the various types of loans, amounts of disbursement (rates of utilization), amounts due for repayments and an over-all picture on the position of foreign borrowing. This would make it easier to predict (with some degree of accuracy) the future magnitude of foreign indebtedness.

The above general analysis is also applicable in the case of the Sudan. However, the following section will focus on those issues which are particularly relevant to the Sudan at the present time and will

then suggest - in the light of the above discussions - the areas where reform may be critically needed.

9.2. The Present Practice in the Sudan and Recommendations for Reform

The Sudan - like most developing countries - created a development planning commission to be in charge of the country's development strategy by formulating successive plans in accordance with the future needs and the available resources. The resource requirement of these plans will be partly met by foreign participation in various forms. The predicted source and sector distribution of future foreign funds has been guided by three considerations:- (i) The carry-over projects from previous plans has been assumed to continue with the support of the original donors, although unanticipated delays may in some instances, increase the initially estimated costs of these projects. In the latter case, it would be necessary to seek new sources of financing if the original supporters were unwilling to extend more resources. Also some projects would be implemented in distinct phases (such as El Rahad project) and hence the new development projections assumed that such projects would continue to find support from the already committed donors. (ii) A large part of envisaged foreign aid is broadly based on preliminary commitments from different donors. In fact, some of these donors undertake to conduct the necessary feasibility studies and to support the particular project. (iii) In the case of projects other than the above two categories (that is, those which lack initial foreign support), the planners may consider that there seems to be

reasonable general prospect of mobilizing foreign support for them during the Plan period.

The above categories of projects which need different levels of foreign support form the basis on which the required size of loans would be projected. Of course, there is allowance for private foreign capital participation but this is determined by different factors. Projections may not necessarily be realized and an evaluation at the end of the Plan period may reveal discrepancies between the actual and the envisaged size of foreign aid, as was revealed in previous chapters. All these projections can hardly be realized in the absence of an effective administrative system to co-ordinate between the different beneficiaries of foreign loans and to ensure the effective use of these funds.

The administration of foreign loans in the Sudan lies with three distinct bodies; namely, the National Planning Commissio, The Ministry of Finance and National Economy and the Bank of Sudan.[3] The Foreign Loans Section in the National Planning Commission is responsible to keep a record of the utilized amounts of foreign loans from developed market economies, multi-lateral agencies and suppliers' credits to the government. (This does not include fiscally autonomous government enterprises such as the Gezira Board). The Planning Commission therefore oversees nearly all direct government development loans and grants. The Bank of Sudan maintains data on drawings from cash loans and the borrowing from Centrally Planned Economies, Middle Eastern and the Arab countries. The Ministry of Finance and National Economy

provides estimates of the envisaged foreign capital inflow during each fiscal year and also an estimation of the annual debt-service obligations. These estimates are based on information from both the Planning Commission and the Bank of Sudan on the amounts and terms of foreign loans.

The Bank of Sudan is in charge of the mechanism of actual debt-service repayments. The estimates of the Ministry of Finance and the amounts it approves to be repaid do not coincide with the actual repayments of the Bank of Sudan because the latter authorizes the effective payments and this depends on the position of foreign exchange at the particular time. Such discrepancies can be avoided if the two bodies exchange information more often and on regular bases.

There are certain loans of relatively small amounts that are normally negotiated between international donors and the Sudanese beneficiary enterprises within a framework of a general agreement between the specific donor and the government. A World Bank mission report stated that neither the government (probably, referring to the Ministry of Finance and the Planning Commission) nor the Bank of Sudan have complete information on the final agreements and the terms of such loans.[4] But since all foreign exchange spending is subject to official control and all transmissions will necessarily have to be conducted through the Bank of Sudan, the latter will certainly be informed when the first instalment of debt-service is due. These loans are generally 'tied aid' acquired by the fiscally autonomous enterprises and their disbursement may depend on shipment facilities or certain phased

completion of a given project rather than dates of commitment. However, this may also be true for most types of tied aid.

From this description of the situation in the Sudan, the most salient feature of the present administration system is clearly the absence of a centralized body that would provide information on the different aspects of foreign aid and its magnitude. Chart 1 outlines the responsibilities of the different bodies with regard to foreign aid. Information provided by these establishments concern only public and publicly-guaranteed loans and there is noticeable absence of information on private loans that might be acquired by private firms without the backing of official guarantees. Information on the latter, although crucial to any comprehensive study of outstanding foreign indebtedness of a country, are inadequately reported in most developing countries.

The reconciliation of data from different establishments involved in seeking, using and repaying foreign loans is one of the main factors that necessitate the establishment of an effective foreign aid administration at recipient countries' levels. This will be of utmost value for long-term projections of the magnitude and direction of foreign aid and the implications of that on annual debt-service repayments. It will also eliminate unnecessary duplication and over-lapping of information. The need for such information increases with the rising level of outstanding debt and the growing need for further foreign financing. In addition to that, the country will benefit because it can assess the impact of international initiatives regarding developing countries indebtedness on its own position.

The compilation and analysis of foreign aid data should be entrusted with one of the existing establishments, for instance, Bank of Sudan or the Planning Commission. In addition to this, there is a need to establish a flexible administration system to control the spending of foreign funds in the public sector to depict any shortcomings and accordingly to recommend alternative options. In other words, the new body will ensure that foreign resources are spent according to plan rather than switched to some other unplanned outlays. So, the spending enterprises or bodies will not be left to disburse development funds contrary to that specified in the national plan. Particularly important in this connection is that the proposed administration machine can serve to assess the progress of the different development projects and to recommend re-allocation of resources if that is deemed necessary. As an independent body, it can also ensure that a satisfactory progress towards achievement of the country's development targets is being maintained at all levels. This administration body can be named 'Foreign Financing Commission'. It will also be in a position to gather information on foreign private investment and private loans, and play the role described earlier in this chapter with regard to the importance of an effective management system to deal with foreign funds in capital-receiving developing countries.

This section has focussed on two main issues concerning foreign aid; namely, the consolidation of data and the control of spending. The former will serve many purposes particularly a long-term projection

of the foreign debt and the latter can help to reduce the inefficiencies in using foreign funds. Both will help the country to achieve its development targets and to use available foreign resources more effectively.

Notes and References

1. Mason, E.S. (1964); On the appropriate size of a Development Programme, Occasional Papers in International Affairs, No. 8, Harvard University Centre for International Affairs. This paper examines the role and functioning of the planning machines in developing countries and focuses on the waste of resources that could take place as a result of the inefficiency of the former.

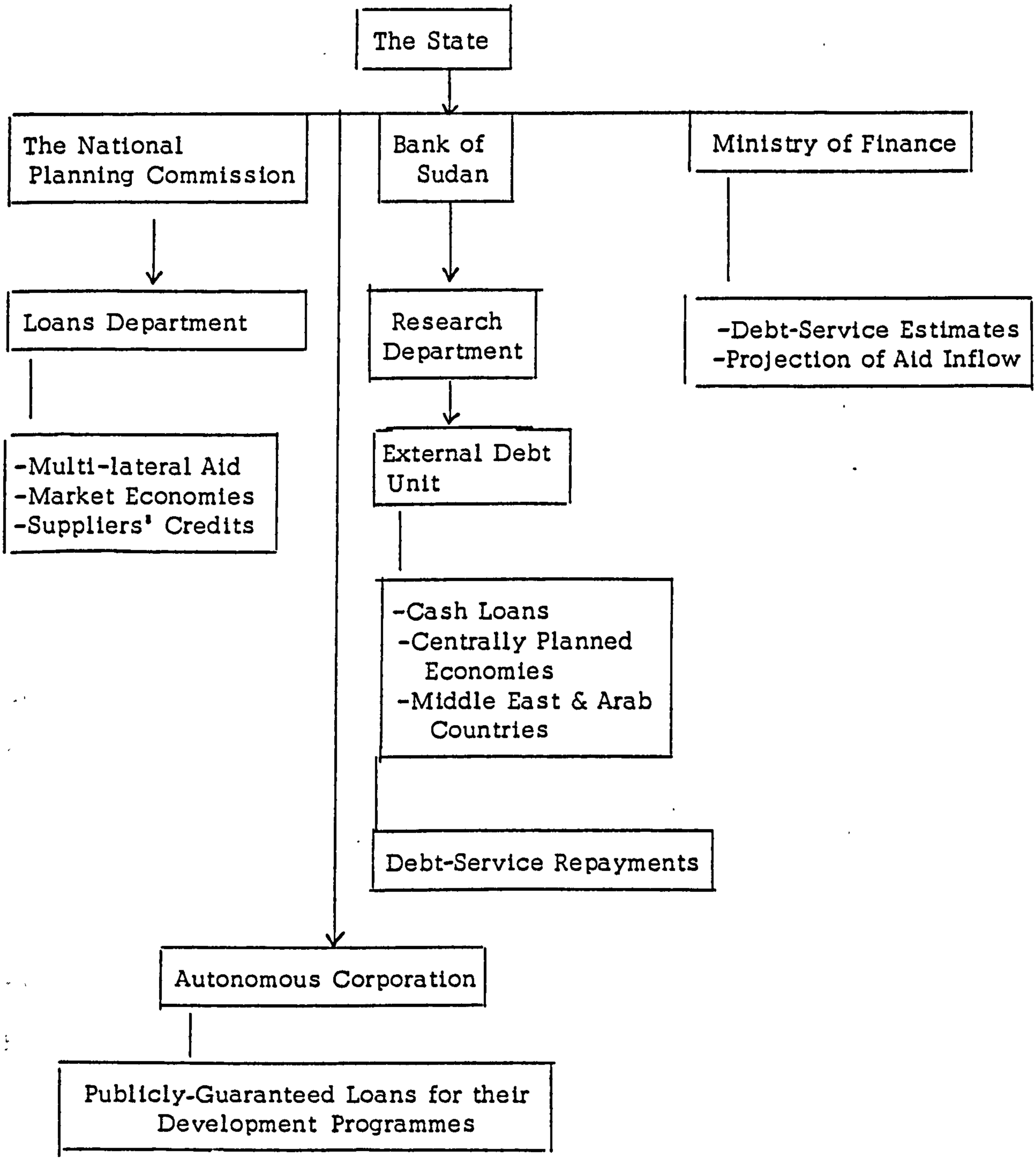
2. Holtham, G. and Hazlewood, A. (1976); Aid and Inequality in Kenya: British Development Assistance to Kenya, Croom Helm/ ODI, London, pp.74-99.

3. IBRD/IDA (1975); Review of the Statistical System of the Democratic Republic of the Sudan, Economic Analysis and Projection Department Report No. 535-SU, Annexe E (d). The description that follows is basically based on the findings of this Report.

4. Ibid., Annex E, paragraph 'd', p.5.

CHART 1

The Present System of Aid-Administration in the Sudan



CHAPTER TEN

Manpower Resources, Foreign Technical Assistance and Emigration from the Sudan

It is an established theme in the development literature that unless both capital and human resources are developed simultaneously, a developing economy will not be capable of achieving and maintaining a self-supported growth rate. Investment in human capital broadly refers to spending on education, training, health ... etc. to raise the size and skills of manpower to carry out the different phases of the development programme efficiently. The two-gap analysis suggests that a developing economy is likely to be constrained during the early phases of development by its existing absorptive capacity. This could prove to be among the main hindrances to development for an appreciable period of time. The limited extent of absorptive capacity partly manifests itself in shortage of skilled and adequately trained manpower who are an indispensable input into the production process. In the light of these considerations, it is not surprising to find that significant proportions of foreign aid to developing countries are extended in the form of technical assistance with a view to expand and to broaden the bases of recipient economies.

The following sections will consider the manpower requirement in accordance with the Six-year Plan (1977/78-1982/83) projections, will assess the role of foreign technical assistance and will examine the

recent phenomenon of emigration from the Sudan.

10.1. Manpower Requirement for the long-term Development Strategy of the Sudan

The concept of "forecasting manpower requirement is today the leading method throughout the world for integrating educational and economic planning."[1] A country forecasts its long-term manpower requirement because of the length of the time normally required to produce skilled and adequately trained working force. This enables countries to redirect their educational systems in a manner which would serve the long-term manpower needs in accordance with the stated development objectives.

Manpower forecasting is a function of various elements. The most prominent among these is the formal system of education that exists at a given time period. The forecast will be based on the in-take and the turn-out at each schooling level and the category classification of higher education graduates. The critical issue is to strike a balance between the anticipated future demand for each manpower category and its potential supply in order to avoid a situation of sharp discrepancies between the supply of, and the demand for certain skills and/or qualifications. The contribution of formal education to the total manpower input is crucial because the total mix of the latter would be influenced by the output of the former.

Other elements include work experience and off-the-job training as distinct from on-the-job training. The former is usually

provided for those whose formal education was not completed. By contrast, the latter takes place either within the particular establishment or outside depending on the size of the labour force in individual establishments and their training programmes. The purpose of these training schemes is to raise the productivity of the labour force and to prepare for future needs.

The capacities of individual developing countries to pursue adequate manpower forecasts are limited by the relative degrees of imperfection in labour markets and the unreliability of information on their structure and the composition of supply and demand. The development programme may not require relatively large numbers of highly skilled and trained manpower in its early stages (since demand is relatively low, temporary shortages could be avoided by using foreign experts and foreign technical assistance), but as development proceeds, there will be a growing demand for such skills. This pattern will be clearly seen when capital-intensive modes of production which require high skills dominate the development spectrum. However, when a country's development programme is impeded by shortages of manpower, the other complementary inputs will be redundant. But this may not be the case, if the given economy possesses an adequate degree of flexibility that enables it to transform its production modes in a manner that can overcome the impact of human resources' shortage. Alternatively, foreign technical assistance is essential as a short or medium-term relief measure, but in the long-run the domestic labour market should respond to the development requirements. However, a

resort to foreign technical assistance to make up for the short-falls may not be a once-and-for-all need, but the former may prove to be of critical importance at different levels during the successive development stages.

On the basis of the first (1955/56) census, and the then forecasted growth rate, Sudan's population in 1979/80 would have been 20 million. But on the basis of the second (1973) census, and the actual growth rate recorded since 1955/56, the population in 1979/80 would be less than 17 million.[2] The economically-active population was well above 4 million in 1969/70 compared with over 5 million in 1976/77. Table 10.1. shows that the over-all rate of increase of manpower during the Amended 5 year Plan (1970/71-1976/77) was 22.8 per percent. The agricultural sector and related activities increased its manpower by about one-fifth being the lowest rate compared with the other main activities. This reflects the growing size of the industrial sector and also the magnitude of rural-urban migration. The size of economically-active population that were absorbed by the industrial sector had increased by 35.8 percent over the mentioned period and this was the highest rate comparable to that of other sectors.

The modern activities were drawing labour from the industrial informal sector and from traditional agriculture. This is so, because the unclassified categories of labour (others) increased by less than the total average and their proportion in the total decreased from 6.7 to 6.4 percent. These modern activities include industry, construction, transport and electricity supplies. The proportional distribution of

manpower also reflects the emphasis on developing basic infrastructure in transport and communications, building and construction, electricity and water supplies ... etc.

In addition, table 10.1. provides an aggregate estimate of the anticipated demand for manpower according to a broad classification of the main activities of the economy from 1976/77, the base year, to 1982/83, the target year. This forecast is based on a 7.5 percent target growth rate for the whole economy. Individual sectors' estimated demand for manpower reflects their present position in relation to the national economy and their envisaged future contribution which is shown by the Plan's emphasis and the relative allocation of development funds. In this connection, it will be recalled that the main theme of the 6-year Plan is the provision of infrastructure and raising the growth of the industrial sector.

With the exception of agricultural activities, the demand for manpower over the Plan's period is expected to grow at rates ranging from 46.9 percent in the case of services to 93.6 percent in the case of building and construction. The highest demand increases are expected to be in industry, construction and electricity supplies. Generally, these activities employ a small proportion of manpower at the present time, but are expected to make an effective contribution to future employment partly by transforming their present structure onto modern bases. However, their manpower requirement certainly depends on the level of capital-intensity in each of these sectors which itself depends

on the choice of technology. In general, these sectors include the economic activities that normally require highly-skilled and trained manpower relative to the others.

Table 10.1. also raises two important issues:- the declining size of the informal sector as development proceeds and the proportionate decline of manpower to be employed in agriculture and related activities in future.

(i) The informal sector lies on the boundaries between industry and agriculture and acquires a mix of characteristics from both. As demand for manpower increases, it could be expected to become one of the main suppliers of labour force to the emerging modern activities and for the traditional sources of employment. High levels of demand may result in a rate of labour outflow from the informal sector that is greater than the rate of inflow into it and this is expected to take place during the 6-year Plan. It is estimated that its size should shrink by about one-fifth at the end of the Plan period.

(ii) As for the agricultural sector, it is expected that the process of modernization and mechanization that is taking place should reduce the over-all relative proportion of manpower requirement of this sector, however, the demand should increase by one-fifth in absolute terms. The over-all rate of increase in demand for classified skills and training levels is anticipated to be 27.3 percent in relation to 1976/77. This rate is held low because of the expected contraction of the size of the informal sector and the projected low rate of increase in

agricultural employment. The forecast of demand for manpower can only be realized if the development targets of individual sectors are achieved.

On the supply side of manpower, many factors must be taken into account to arrive at final estimates. (i) The in-take and the turn-out of the formal system of education at different levels - from the basic primary schools to the very top academic and technical education - constitute the basis of the potential supply of manpower. (ii) The supply of highly educated professional and technical manpower is a function of the existing structure of higher education. The anticipated demand for particular types of skills requires alterations in the present composition of higher education. (iii) The composition of demand requires certain basic formal qualifications in addition to the subsequent training in technical or professional institutions. Such a relationship between educational levels and occupations means that a certain pattern of supply has to be maintained if future demand is to be met. Therefore, in a country where education is substantially financed and also controlled by the state, only policies designed to influence the composition of its turn-out will reduce the discrepancies between its over-all supply and the potential demand, especially for those particularly needed skills and qualifications. (iv) The potential supply of manpower must be projected on the anticipated turn-out of the different educational institutions, training programmes, size of annual retirement, up-grading and promotions, mobility between different activities and between public and private sectors and the magnitude of

emigration from the country.

Table 10.2. presents an aggregate picture of the forecasted requirement of manpower at the end of the 6-year Plan period (1982/83) and the anticipated shortages in certain occupational categories. Two characteristics deserve mentioning:- (i) Potential supply of manpower is envisaged to fall short of demand as one moves up the scale towards higher skills. However the apparent excess supply of semi-skilled is insignificant being below 5 percent of both supply and demand and could be absorbed by training in different skills. (ii) There is an apparent excess of supply of graduates from high educational institutions (for instance, universities) - particularly in humanities - over the present and anticipated future demand if the composition of the present turn-out is maintained. It might therefore be concluded on the basis of this forecast that the development process in the Sudan is likely to be constrained by shortages of skilled and trained manpower. However, shortages of certain skills may be overcome by appropriate changes in production techniques. The degree of complementary between different categories of manpower in a productive unit or a sector indicates that the absence of some critically important skills will lead to lower demand as we move down to the bottom of the ladder.

The 6-year Plan spoke in broader terms about the pattern of manpower requirements and the reasons for the shortfalls of supply over anticipated demand, for example, technicians, doctors, engineers ... etc. It relates the present situation in the Sudanese labour market to many

factors:- (i) The lack of national educational policies based on the future manpower requirement of the country's long-term development strategy. In other words, the existing pattern of educational system, besides being limited in scope and capacity, is not flexible enough to respond to the changing composition of manpower needs. (ii) The existing ad hoc system of job allocation with, sometimes, little regard to the particular job specifications. (iii) The absence of a comprehensive training strategy and the apparent reluctance of some establishments (public or private) to engage in manpower training. (iv) The lack of effective co-ordination between the different employers in the public activities and autonomous enterprises which resulted in diverse wages and salaries structure for those doing similar jobs. (v) The degree of over-lapping and duplication between different government units especially in the services sector leading to the draining of scarce skills and confusion among users.

To the extent that the above characterisation of the labour market is valid, it could be accompanied by a number of adverse consequences:- (i) Lower productivity would be expected in different spheres than could be possible. (ii) A situation would arise where certain activities are comparably over-crowded with particular skills while others suffer critical shortages of these same skills such as engineers. (iii) This could result in sizeable unemployment among certain manpower categories (for instance, University graduates in humanities), not necessarily because their numbers exceed actual demand but largely due to the confusion arising from an inadequate specification and allocation

of jobs. (iv) The size of outward emigration will increase adding more strains to the already scarce skills. (v) The size of migration of skills from the public sector to join the private and joint-venture activities for the sake of better job terms will grow.

Short-term measures to ease the adverse effects of these flaws in the labour market might be based on the following measures:-

(i) The creation of a flexible system of payment that would reduce the existing variations in the public and semi-public entities. (ii) The introduction of appropriate incentive schemes for public employees so that they stay effectively in their jobs. (iii) A re-organisation of the present payment system and re-allocation of jobs within the public sector in order to remove duplication. (iv) The creation of pilot training schemes in accordance with the requirements of development programmes. (v) A resort to international donors to ease the shortages in high skills and managerial levels and to develop training programmes for other categories.

In the long-run, a more satisfactory outcome would depend on the extent to which the labour market reshapes itself in a manner which can provide the required composition of manpower. This should involve:-

(i) New policies towards the present educational system so as to provide the long-term requirement of the economy at various development phases.

(ii) Most importantly required is the provision of the necessary facilities to encourage younger generations to embark on technical education and apprenticeship-training programmes in accordance with

potential demand. (iii) There is need to develop long-term training programmes for different skills.

The forecasts of future manpower requirement will not be fully realized unless the capacity of the economy to provide other necessary complementary inputs for the production process is adequate. The actual supply of manpower depends on the success of policies designated to restructure the labour market so as to satisfy the expected future demand. The following section examines the contribution of foreign technical assistance to economic development and the extent to which it will ease manpower shortages.

10.2. Foreign Technical Assistance

Foreign technical assistance is generally regarded as one of the least documented items of foreign aid on the recipients' side and Sudan is not exceptional in this connection. This is explained by, partly a general deficiency of statistical data on these countries but more particularly by the nature of technical assistance programmes because they do not normally entail physical capital movements between the recipient and the donor countries. This makes it difficult to record the nominal values of technical assistance and to assess its contribution to the recipient country.

Technical assistance can be acquired in various forms depending on the size and type of shortages in manpower supply in a given country. That includes manpower supplementation, advisory and training assistance.[3] Manpower supplementation takes two forms:-

consultancy on various issues,and expatriates to do professional jobs in areas where the temporarily fixed supply falls short of the effective permanent demand. Training assistance may also take place in the recipient and/or the donor country or possibly in a third country. The above forms of technical assistance may be provided on a grant basis. But in some cases, a recipient country may have to pay for such services from a financial loan acquired from the home country of the expatriates. Also, a bilateral donor may subsidize the expatriates salaries and provide them with other incentives. Technical assistance grants are perhaps more useful where the purchase of such services involves a high foreign exchange component for a country with limited foreign exchange earnings.

The place of technical assistance in foreign aid programmes is shown in table 10.3. This shows the size of technical assistance that was extended by DAC members of the OECD from 1961 to 1971. The percentage of technical assistance in both the total and bilateral ODA was on the increase over the specified period. The proportion of ODA provided in the form of technical assistance showed an appreciable increase in relation to the total amounts of aid and in absolute terms. At a time when total ODA from DAC members increased by 49.3 percent over the eleven years period under review and that part in the form of bilateral aid increased by only 37.3 percent, technical assistance increased by 112.8 percent. This reflects the growing need on the part of recipient developing countries for foreign technical assistance in areas where critical shortages are evident. It also reflects a growing

willingness among DAC members to assist developing countries in bridging the human resources gap.

There appears often to be some specific connection between the proportions of the different components of foreign aid from different sources. In other words, financial and technical assistance are usually combined in some proportionate ratios for a given project. Such combinations should be determined on the basis of the need of individual economies for technical assistance. However, a technical assistance grant may not be project-oriented, in the sense that it is not related to financial aid for the same project or establishment.

The Sudan has received foreign technical assistance in different forms: namely, expatriates in various spheres, grants for training manpower at home or abroad, teams of consultants for pursuit of feasibility studies, higher education teaching staff ... etc. Detailed data on the actual size of technical assistance programmes and its money equivalent value is scarce. The information presented here may under-estimate the real value of technical assistance, but, despite its flaws, it is probably a reasonably dependable indicator of its magnitude.

Table 10.4. shows that during the years 1965/66-1971/72, foreign technical assistance and grants to the Sudan did not exceed 8.7 percent of the total development expenditure during any single year and the average for the whole period was 5.9 percent, but it showed an over-all average of 20.8 percent in relation to the total disbursement of

foreign development funds. The main sources of technical assistance during this period were international multi-lateral agencies, United States of America and the United Kingdom. Technical assistance ratios fluctuated in a similar manner to those of development aid disbursement although for some years (e.g. 1968/69), they were particularly high because development funds were relatively small. The proportion of technical assistance and grants in total foreign development funds is comparable to the average percentage of technical assistance to bilateral ODA by DAC members of 21.4 percent in table 10.3.

Sudanese sources provide inadequate information on foreign technical assistance. Because of this, donors' data will be used in the rest of this section. On the international multi-lateral donors' side, "UNDP is the main technical assistance arm of the United Nations system and plays a key role in international technical co-operation."[4] During the period up to the end of 1972, UNDP extended an equivalent of 17 m. U.S. dollars in technical assistance to the Sudan in support of United Nations agencies-financed projects.[5] This comprised 46 percent of the total costs of these projects and the rest was the Sudanese government counterpart contribution. These programmes covered almost all the activities of the economy primarily to increase its absorptive capacity.

On the bilateral side, United Kingdom is one of the main sources of technical assistance to the Sudan. This stems from direct economic relations between the two countries and also historical ties. The

British aid programme concentrates on renewal natural resources, transport, public administration, health, education ... and includes assistance in the forms of expertise, consultancy and training. Britain finances many small-scale projects involving a single expert or a group of experts sometimes for short periods. These include advisors on veterinary matters, experts in pest control, agricultural engineering (and food processing), civil engineering and lecturers in higher education institutions and the universities.

Table 10.5. indicates that Britain attaches great significance to technical assistance in its aid programme to the Sudan. The reduction in percentages did not mean that the size of the technical assistance programme was scaled down but rather reflected the increasing volume of financial aid during some years.

The Sudan has received a significant proportion of the total British technical assistance extended to non-commonwealth African countries as table 10.6. indicates. In 1978, that proportion was 41.7 percent. The allocation to the Sudan has shown a pattern of increase in most of the years under review. This is primarily in response to the development needs of the country. An important ingredient of British technical assistance to the Sudan is that concerned with manpower training programmes. In 1978, a total number of 339 Sudanese benefited from this programme of whom 114 were having training courses in Britain.[6]

Table 10.7. shows that the percentage ratios of technical

co-operation grants to total net and gross ODA on a bilateral basis from DAC members of OECD was 30.3 and 25.7 percent on average for each respectively over the period 1972-77. The main contributors were United Kingdom and Germany whose percentage share amounted to 19.8 percent and 48.7 percent consecutively (or 68.5 percent of the total technical co-operation grants from DAC countries). The EEC members of DAC had a very substantial contribution to such bilateral technical aid (93.1 percent in 1976 and 91.4 percent in 1977). Technical co-operation grants from multi-lateral sources constituted 32.5 percent of total net ODA as average for the period 1972-1977.[7]

In general, technical assistance extended for development purposes is usually part of a loan or a grant. It is a tied form of foreign aid. Even though, since the international price of skills is relatively high, foreign technical assistance can be of great benefit to developing countries because they may not be able to acquire such skills through the normal market because that entails a high foreign exchange component.

Finally, it is necessary to note that technical assistance benefits to human resources in one country (in particular manpower training) may accrue to other countries by the process of shifting through emigration. An illustrative example will explain this phenomenon. Suppose that country X is training 1,000 of its nationals abroad and 20 percent (i.e. 200) of these are benefiting from foreign technical assistance programmes. If the underlying rate of emigration is 10 percent, then, in normal circumstances, 100 of the total number trained during that year are expected to emigrate. By applying the same rate

of emigration to those sponsored by technical assistance schemes, the country will end up with only 180 trainees out of 200. Therefore, 10 percent of the total number trained under foreign technical assistance programmes will not benefit their home country unless, of course, they are forced to do so. The full direct impact of technical assistance, therefore, does not accrue to the originally intended recipient country. Donors are, therefore, providing technical assistance in an indirect way to other countries. However, the long-term impact on the intended recipient country would depend on its policies towards emigration and how it views this issue in the context of the present situation and future manpower requirements.

10.3. The Trend of Manpower Emigration from the Sudan and its over-all Impact on the Economy

The recent phenomenon of labour emigration from the Sudan is a cause of great concern in both academic and policy-making circles.[8] This growing concern is predictable since the country is embarking on the largest developmental programme in its history which requires an increasing number of skilled, qualified and trained manpower. Many factors have contributed to this growing concern about the magnitude and composition of manpower emigration from the Sudan:- (i) The discrepancies between the available and forecasted manpower in relation to the anticipated requirement of the present Development Plan and the long-term development objectives is an important factor. It was shown earlier in this chapter that the over-all manpower supply is anticipated to fall short of the potential demand by the end-period

of the present Plan in 1982/83. (ii) As development proceeds, there will certainly be a growing demand for more technical and professional cadres in general and for highly-specialized manpower in particular. The irony of the matter is that the former are the categories which are, at the present time, subject to high rates of emigration. (iii) The lack of reliable information on the magnitude and pattern of emigration led some commentators to over-estimate its size and this itself might lead the authorities to impose inappropriate policy measures that might neither be in the long-term interest of the country nor the emigrants. (iv) Most of the countries to which the bulk of Sudanese emigrants go are involved, in one way or another, in development financing in the Sudan which might suggest that there is some sort of relationship between the two. This might also be the case of private and joint-venture projects from the same countries that normally offer better terms of employment than the existing earned-income structure, particularly for those involved in the services sector, finance corporations and banks.

In a perfectly competitive world, factors of production will move across the political boundaries seeking high rates of return. So, labour is expected to move to countries where there are higher earnings than those offered in their home country in order to raise their standard of living. This seems to be one of the prime motives behind emigration. Other motives include political frustration, social discontent and the desire to assist other nations in building their economies. In some cases, the latter reasons may be the dominant factors behind emigration

rather than high earnings. Particularly relevant to the Sudan is that the existence of a common language has much facilitated emigration of manpower to the oil-exporting Arab countries.

Successive governments in the Sudan have appreciated the significance of developing and maintaining mutually beneficial economic and cultural relations with the outside world generally and with particular countries in the region. Among the measures taken to promote mutually beneficial relations with the latter countries, the Sudan has assisted them in overcoming the shortages of some manpower categories, when it could release labour without any harmful effects to the Sudanese economy. Thus,school teachers and others have been seconded to countries such as Oman, Saudi Arabia, Nigeria, Libya ... etc. In addition, individuals have entered into private contracts with foreign governments, private businesses and international institutions. This phenomenon has been going on for quite a long period in the Sudan but passed largely without comment. This may be because it was of small size in relation to the then available manpower or that it did not seem to have a considerable impact on the scarce skills and qualifications as was then required. Perhaps one main reason is that there was not a great deal of concern about manpower planning itself.

Present concern with emigration is the result of the present composition of the labour market, and the anticipation of acute shortages in specific skills and qualifications. The present trend of emigration has also aroused concern because of its magnitude and

composition. The crucial concern has been whether the Sudanese labour market can bear this level of manpower export or whether it should eventually be restructured so as to accommodate the present size of emigration without causing adverse effects on the economy.

An up-to-date and accurate record of the number of emigrant Sudanese nationals and their category composition does not exist. This includes all forms of emigration. Nevertheless, everyone would agree that the direction of the recent flood of emigrants is the oil-rich Arab countries. It was estimated by Birks and Sinclair that in the year 1971, about 75 percent of the total number of Sudanese nationals being employed outside the country were skilled labourers.[9] Table 10.8. also reveals that only 5 percent of emigrants was from white-collars and other related professions. According to Birks and Sinclair, the size of emigrant manpower during the sixties was not significant in comparison with the total labour force and there was no point in attaching great emphasis on this phenomenon. But, however small its size was, the composition of emigration at that time was a drain in the skilled manpower (as can be seen from table 10.8. where skilled labourers constituted more than 80 percent of the total number of emigrants). By 1975/76, the number of Sudanese who were granted permission to travel to other Arab countries increased by one and a half times relative to the total of the four preceding years.[10] Emigration to Arab countries gathered momentum after the oil price increases of 1973 and its impact on the size of development investment in beneficiary countries. The increase in the rate of emigration from the Sudan

happened at a time when the country was preparing to undertake a larger development programme with substantial foreign support. The 6-year Plan spoke about emigration in the context of developing the manpower resources of the country to cope with the forecasted demand and called on concerned bodies to gather information on its size and pattern and to suggest ways and means to accommodate it without causing harmful effects on the development process.[11]

Table 10.9. suggests that certain categories of skilled manpower had lost significant percentages of their total labour force through emigration. If these estimates are correct, the situation is particularly alarming in the case of engineers of whom, according to this table, one-third had, at that time, already emigrated. This category of manpower is of critical importance to the present development programme which involves investments in construction, irrigation, industry ... etc. Almost 20 percent of university teaching staff work abroad. That causes concern because of the anticipated horizontal and vertical expansion of higher education in the Sudan which is supported by the establishment of two new universities, at Juba and at Wadi Medani. The over-all proportion of the Sudanese workforce working abroad is 3 percent of the total number of economically-active population and is one-eighth of the modern sector labour force.[12]

(Immigration into the Sudan, apart from technical assistance, is composed predominantly of unskilled seasonal labourers from central and west Africa, but information about its dimensions is meagre).

Despite the caution with which the above estimates should be treated, it can hardly be doubted that the impact of emigration on the modern sector is greater than that on the traditional sector and this is one aspect of emigration that causes concern, because the size of the modern sector should increase in both absolute and relative terms as development proceeds. The latter absorbs most of the highly skilled and trained manpower of whom relatively large numbers emigrate.

Available information on emigration from the Sudan can only be taken as an indication of its magnitude because not every individual emigrant will necessarily be granted official approval from his unit or the government authorities and so be included in the official record. Some simply absent themselves from work without any prior notice and subsequently emigrate. This proportion of emigration takes place without the consent of the authorities and therefore its size and composition can not be accurately estimated. These so-called 'illegal emigrants' represent withdrawal of labour from the public and the private sectors in both forms; modern and traditional. Some of them however are also from the professional cadres such as university teaching staff. But, the bulk of 'illegal emigration' comes from the semi- and un-skilled categories of manpower. On arriving at their intended destinations, some skilled labourers may not find the specific job which suits their experience and skill and so may settle for any other job offer although it may not relate to their fields of specialities. In fact, some skilled labourers may find themselves doing unskilled manual jobs but on relatively higher wages than that they can be offered

at home.[13] The phenomenon of switching to inferior jobs casts some doubt on the theme that an emigrant will necessarily 'acquire new experiences' as a long-term merit to the exporting country if he ends up there.

An obvious adverse impact of emigration on the Sudanese economy is to exacerbate temporary shortages in certain manpower categories, particularly that the manpower forecast during the 6-year Plan period envisaged critical shortages in technically-professional categories such as engineers, technicians, managers, personnel and medical doctors. These are the same categories which are prone to face the highest level of outflow from the country relative to other groups if the present trend of emigration continues. Certainly, the future composition of emigrant manpower can be expected to contain significant numbers from these categories since there is likely to be a high level of demand for such skills in the present labour-receiving countries. The destination of most of the Sudanese emigrants is the oil-exporting countries in the Middle East and Africa. However, emigration to these countries is not only from the Sudan but affects other countries in the region such as Egypt, Jordan, Yemen, Lebanon ... etc. Migrants also come from other countries such as India, Pakistan, Malaysia ... etc.

The main issue is that since the present composition of Sudanese labour-force supply already falls short of the present effective demand as well as the anticipated requirements, the observed pattern

and composition of emigration exacerbate the difficulties. When a highly-skilled or professionally-trained person emigrates and no effective counterpart can immediately replace him, he often leaves junior staff without adequate supervision and guidance frequently resulting in inefficient operation and administration. The same thing is also applicable to senior administration and management personnel. The full impact of emigration on the economy might not be felt immediately but only in the long-run through deterioration of services such as medical care and education and perhaps lower output in the case of productive units as well as delays in the fulfilment of the planned development programme. With the possibilities of higher earning opportunities abroad than at home spreading, a considerable part of the remaining manpower may feel frustrated and so intends to emigrate or else may seek illegitimate means to become relatively better-off. The spillover of the luxurious pattern of consumption like fashionable dresses, expensive wedding parties, luxury housing ... etc. may encourage further emigration and also increase the rate of inflation. The present pattern in which most of the emigrants spend their savings in the services sector will also grossly increase the proportionate size of that sector relative to others.[14]

Emigration may, of course, have some positive effects on the economy. It will reduce the level of unemployment if the composition of the emigrant population is biased towards the unemployed categories. There is, however, no evidence that the Sudan is exporting significant numbers of its unemployed people to other countries. Another important

contribution stems from the emigrants' remittances to support the balance of payments similar to that in the case of Turkey.[15] In fact, the Sudanese authorities have taken certain steps to encourage emigrants to undertake their financial dealings though the Sudanese banking system and also to influence the pattern by which they spend their earnings. A 'nil-value' system of import licences has been introduced which enables an emigrant to import commodities for commercial purposes without foreign exchange transmission from Sudan.[16] This system intends to mobilize the savings of Sudanese nationals who have permanent jobs abroad. There is also a system whereby emigrants are paid a rate higher than the official exchange rate if they deposit their savings in a special bank account and for a minimum period of time.[17] They are allowed to draw their savings in local currency or in foreign exchange. Also there is a system whereby an emigrant can purchase a plot of land for housing in Khartoum or other urban centres at reduced prices if he can pay the cost in foreign currencies. In addition to attracting emigrants' savings, this can help to ease the housing problem in big cities such as Khartoum, Khartoum North and Omdurman.

One of the encouraging signs concerning the effectiveness of these measures is the sharp increase in the remittance of savings from Sudanese emigrants. Table 10.10. shows that these remittances have significantly increased by 1977. Figures for 1978 and 1979 are not comparable because they include the value of imports covered under the 'nil value' import system.[18]

The basic economic factor behind international migration is wage differentials between different countries and particularly those in the same region. If the present capacity of the Sudanese labour market cannot tolerate the present outflow of manpower, the question might then be posed:- can the country change the structure of job earnings to become relatively competitive with other countries to whom emigrants move, so as to reduce the size of emigration? Present difficulties are so enormous that this is clearly out of the question. In fact, internally the public sector is already facing movement of personnel to autonomous enterprises, foreign joint-ventures and the private sector which offer relatively better terms of employment. The capacity of the public sector to increase the wage bill is limited by the ordinary budget allocations. So, it seems that if the above employers should go on bidding in the present inelastic labour market supply situation, then the public sector will certainly be at a disadvantageous position. This is primarily because the pattern of existing wage policies could be distorted and shortages will be shifted to the public sector. In that situation, the development programme might well face bottlenecks arising from skill limits because the public sector assumes the upper hand in the development drive of the country. But if the type of employment emerging outside the public sector is only temporary (for instance, construction), then one would expect the trend to reverse in future as long as the public sector remains the largest employer in the Sudan.

The nominal cost to the economy arising from emigration can be

partly reduced if the major recipients of emigrants contribute to finance training programmes in the Sudan; however, they provide the Sudan with foreign aid but not specifically for manpower planning. If the aid funds for such manpower planning were increased, this could enable the Sudan to increase the supply of manpower and thereby to strike in future a balance in the various critical skills. The money cost of emigration to the Sudan would be reduced and recipient countries could be assured of a more continuous supply at least during a specified period of time.

Some have suggested that the authorities should impose an administrative embargo on the exportation of certain skills. But such policy may prove ineffective and self-deficient because of the impact of restricting the movement of labour force by limiting their job opportunities and also the phenomenon of 'illegal emigration'. Such a policy may also adversely affect the size of foreign aid the country is at the moment receiving from these labour recipient countries.

At the present time, it would be helpful if,at least,policy-makers had a thorough knowledge on the various aspects of emigration and the possibilities of reversing the trend. As a de facto, the country should make the most of it by implementing policies to minimize the adverse impact on the economy in part by utilizing the possibilities for improving the balance of payments. Careful consideration of the long-term magnitude and pattern of emigration coupled with the forecast requirement of domestic manpower should both be reflected in the manpower plans. This should enable the country to avoid bottlenecks that could deprive the economy from certain critically-needed skills and qualifications at a particular development phase.

Notes and References

1. Blaug, M. (1972); An Introduction to the Economics of Education, Penguin, Chap. 5, p.137. This introduction draws from chapter 5 'the Manpower Requirement Approach', pp.137-68.

2. Lee, F.A. and Brooks, H.C. (1977); The Economic and Political Development of the Sudan, The Macmillan Press Ltd., p.14.

3. World Bank (1975); Kenya into the Second Decade, Country Economic Reports, John Hopkin University Press, pp.431-3.

4. JDP, Vol. 6-10, (1974-76), No. 9, p.112.

5. UNDP (1972); Compendium of Approved Projects, UNDP/MIS/ Series A/No. 2.

6. British Aid Statistics, 1974/78, HMSO, London, table 31.

7. Data supplied by the Development Co-operation Directorate of OECD in Paris on request.

8. For example, Jallal ad Din, M.A. (1978); Emigration from the Sudan, NCR/ESRC, Draft Report (in Arabic). Also, the Development Committee of the Sudanese Socialist Union held a symposium in 1978 on the impact of emigration on the Sudanese economy.

9. Birks, J.S. and Sinclair, C.A. (1978); International Migration Project, Country Case Study, the Democratic Republic of the Sudan, Department of Economics, Durham University, p.47.

10. Ibid., p.50.

11. The 6-Year Plan (1977/78-1982/83), p.133.

12. Mustafa, M. El M. (1980); Development Planning and International Migration in the Sudan, Labour and Society, Vol. 5, No. 1, p.87.

13. Jallal ad Din, M.A. (1978); op.cit., pp.11-2.

14. Ibid., pp.7-8.

15. It was estimated that in 1973 Turkey received an amount of foreign exchange from its emigrants' remittances which was almost equal to the total proceeds from visible exports during that year. However extreme this case may be, it shows how far a country can benefit from manpower emigration. For further details see, Franko, G.L. and Seiber, M.J. (1979); Developing Country Debt, Pergamon Policy Studies, Pergamon Press, p.143.

16. The Economic Survey, 1975/76, Ministry of Finance and National Economy, Khartoum, p.101.

17. Ibid.

18. These figures were £S.55 m. and £S.75.4 m. for 1978 and 1979 respectively.

TABLE 10.1

The Development of Manpower during the amended 5-Year Plan (1970/71-1976/77) and Demand Forecast during the 6-Year Plan (1977/78-1982/83) classified by main activities (Percentages)

Activities	1969/70	1976/77	% increase over period (1969/70-1976/77)	1982/83	% increase over period (1976/77-1982/83)
Agriculture, Forestry & Fishery	69.5	68.5	21.1	64.5	19.9
Industry & Mining	3.3	3.7	35.8	5.5	89.7
Electricity & Water Supplies	0.9	0.9	24.5	1.2	68.0
Building & Construction	1.8	1.8	27.9	2.8	93.6
Finance & Trade	4.7	4.9	27.2	6.0	55.8
Transport & Communication	3.3	3.4	25.8	4.0	51.1
Services	9.8	10.4	30.7	12.0	46.9
Others*	6.7	6.4	16.5	4.0	-20.3
Total/Average	100.0	100.0	22.8	100.0	27.3

Source: The 6-Year Plan (1977/78-1982/83), Vol. 1, Ministry of Planning, Khartoum, tables 7.4 and 7.8, pp.126, 144.

* Broadly designated as 'informal sector'.

TABLE 10.2

The Balance between Supply and Demand for Labour During the 6-Year Plan Period (1977/78 - 1982/83) by Occupational Levels ('000)

Occupational Levels	1 Supply	2 Demand	3 Balance	Position 3/2%
Professionals	26.0	23.5	+2.5	+10.6
Technicians	13.7	24.0	-10.3	-42.9
Assistant Technicians	17.5	24.0	-6.5	-27.1
Skilled Labour	48.8	72.0	-23.2	-32.2
Clerks	45.0	41.0	-4.0	-9.8
Semi-skilled Labour	679.0	648.0	+31.0	+4.8

Source: The 6-Year Plan, op.cit., table 7.10, p.149.

N.B. The supply of 'managers' cannot be projected because they include various professional and educational levels. Even their demand is difficult to predict.

TABLE 10.3

Technical Assistance as a Percentage of Total and Bilateral ODA extended by DAC members of OECD to Developing Countries and their Increase over the Period (1961-71)

1.

Years	Technical Assistance as Percentage of:	
	Total ODA	Bilateral ODA
1961	15.0	16.6
1962	13.7	15.2
1963	15.1	16.1
1964	16.1	17.2
1965	18.0	19.2
1966	20.6	21.8
1967	20.1	22.7
1968	23.3	26.1
1969	23.1	27.4
1970	22.4	26.8
1971	21.3	25.8
Average	19.0	21.4

2. Increase Over Period $\left(\frac{1971}{1961}\ \%\right)$

Total ODA	49.3
Bilateral ODA	37.3
Technical Assistance	112.8

Source: OECD (1973); Flow of Resources to Developing Countries, Paris, table 1, p.431.

TABLE 10.4

Foreign 'Technical Assistance and Grants' as a Percentage of Development Expenditures and Disbursement of Foreign Development Funds for 1965/66 - 1971/72 (£S.m.)

Fiscal Years	1 Technical Assistance and Grants	1 as % of Development Expenditures	1 as % of Foreign Aid Disbursement
1965/66	2.9	8.7	22.0
1966/67	2.2	7.9	22.7
1967/68*	1.1	5.3	11.3
1968/69	1.5	3.4	30.0
1969/70	1.4	4.0	15.3
1970/71	1.6	6.0	30.8
1971/72	1.8	6.0	13.4
Averages		5.9	20.8

Source: The Economic Surveys 1969 onwards (Author's Calculations). Disbursement figures to calculate the last column are from Appendix 5.

* The U.S.A. government suspended its aid programme to the Sudan.

TABLE 10.5

Technical Assistance as Proportions of the British Government Aid to the Sudan for 1973/74-1980/81 (Percentages)

Fiscal Years	Percentages
1973/74	88.8
1974/75	68.6
1975/76	33.6
1976/77	49.9*
1977/78	43.0**
1978/79	33.6**
1979/80	30.2**
1980/81	41.7**

Source: North and General Africa Department, ODM, London, February 1978, table 1, (provided on request).

N.B. Percentages are the Author's calculations.

* Provisional.

** Estimates.

TABLE 10.6

Percentage Share of British Bilateral Technical Assistance Granted to the Sudan among Groups of Developing Countries, 1974-78.

Groups of Countries	1974	1975	1976	1977	1978
Non-Commonwealth (Africa)	25.9	31.3	34.0	37.7	41.7
Non-Commonwealth (All)	6.9	9.2	10.1	9.0	11.8
All Developing Countries	1.4	1.9	1.9	2.1	2.3

Source: British Aid Statistics, 1974/78, HMSO, table 22, pp.68-73.

N.B. Percentages are calculated by the Author.

TABLE 10.7

Technical Co-operation Grants from DAC Members of OECD as Percentage of the total Gross and Net ODA, 1972-77.

Years	TCG* as % of Net ODA	TCG* as % of Gross ODA
1972	33.7	22.7
1973	29.8	22.8
1974	20.9	18.5
1975	23.3	21.3
1976	32.3	30.1
1977	41.7	38.9
Average	30.3	25.7

Source: OECD, Development Co-operation Directorate, Paris (Supplied on request).

* TCG stands for Technical Co-operation Grants.

TABLE 10.8

Sudanese Employed Outside the Country by Occupational Categories (1971)*

Categories	Number	Percentage
Professional and Administrative Jobs	106	1.2
Sub-administrators, Sub-professionals, Clerical and Accountants Jobs	333	3.3
Skilled Labour	6574	75.1
Unskilled Labour	1040	11.9
Others	703	8.0
Total	8756	100.0

Source: Birks, J.S. and Sinclair, C.A. (1978); International Migration Project, Country Case Study, the Democratic Republic of the Sudan, Durham University, table 29, p.49. (Original Source Unspecified).

* Includes Sudanese who work for foreign governments and organizations only.

TABLE 10.9

The Proportion of a Number of Selected* Skilled Sudanese Manpower Categories Working Abroad in Relation to the Total Stock in the Country (1978)

Occupations	Total No.	No. Working Abroad	Percentage
Medical Doctors & Dentists	2615	446	17.1
Engineers	1539	461	30.0
Surveyors & Survey Technicians	440	198	45.0
University Teaching Staff	1330	265	19.9

Source: Mustafa, M. El Murtada (1980); Development Planning and International Migration in the Sudan, Labour and Society, Vol. 5, No. 1, table 2, p.88. (Original Source Unspecified).

* Selected for their critical importance to the development progress of the Sudan.

TABLE 10.10

Private Transfers of the Sudanese Working Abroad (£S.m.)

Years	Amounts
1970	0.4
1971	0.4
1972	1.1
1973	1.2
1974	1.3
1975	2.1
1976	4.3
1977	14.0

Source: Bank of Sudan Annual Reports, 1970-77 (Invisible receipts of the current account of the balance of payments).

PART III

FOREIGN INDEBTEDNESS OF THE DEVELOPING COUNTRIES: A STUDY OF THE DEBT POSITION OF THE SUDAN

CHAPTER ELEVEN

Developing Countries Indebtedness: A growing Concern

11.1. Introductory Background

Since almost all developing countries need foreign capital to help them to maintain adequate levels of investment to reach a self-sustained growth path and since not all such capital can be acquired in the form of grants, these countries incur foreign debt which must be served. The size of debt-service depends on the terms and amounts of foreign loans. Debt difficulties may arise for various reasons: A recipient economy may not have reached a state of generating adequate domestic resources to finance the required level of investment or has not completed a process of exports diversification. On the other hand, factors beyond the recipient country's control may add to those difficulties; for example, the unanticipated increase in oil prices of 1973; the state of the industrialized economies in relation to demand for its exports; the relative hardening of loan terms and the resort to more borrowing from private financial institutions. When it became clear - judging from the pattern of relevant indicators - that there exists a possibility of some developing countries not being able to meet regular debt-service repayments at the present time or in the foreseeable future, the issue of developing countries' indebtedness became a cause of great concern. It is widely perceived that a debt problem would certainly affect both donors and recipients and would also have an

impact on the functioning of the present system of international economic relations.

A debate on developing countries' indebtedness has been going on for a number of years in the academic field, various United Nations agencies and policy-making bodies in both developed and developing countries.[1] Among the main reasons for this growing concern is the possibility of default on debt by some recipient countries. Such an act may seem attractive to other developing countries which do not necessarily face critical difficulties at the present time and so it may become a universal practice which would affect the whole process of capital transfer to the developing world. With these difficulties in mind, the United Nations Second Development Strategy stated that

> "arrangements for forecasting, and if possible, forestalling debt crises will be improved. Developed countries will help in preventing such crises by providing assistance on appropriate terms and conditions, and developing countries by undertaking sound policies of debt management. Where difficulties do arise, the countries concerned will stand ready to deal reasonably with them within the framework of an appropriate forum in co-operation with the international institutions concerned, drawing upon the full range of available methods including, as may be required, measures such as arrangements for rescheduling and refinancing of existing debts on appropriate terms and conditions."[2]

These propositions emphasize the importance of co-operation between all concerned parties to overcome debt difficulties. The United Nations suggests a target transfer of one percent of each developed country's GNP to the developing countries for its 'Second Development Decade'.[3]

However, the 1970's witnessed the emergence of particular problems. Prices of manufactured goods, and especially fuel, have sharply increased since 1973. Developing countries that entirely depend on imported oil were badly affected and their balance of payments positions have seriously deteriorated. This, coupled with a general decline of demand for primary products in international markets could render their debt service problems quite unmanageable.[4]

The examination of the debt problems of developing countries focuses on the factors that determine their debt-servicing capacity which is the ability to maintain regular debt-service payments without causing balance of payments difficulties. Such an approach entails the examination of ratio indicators to evaluate the impact of annual debt-service on the balance of payments of the recipient country and its economy as a whole.[5] These indicators include the debt-service ratio, reserve/import ratio, growth rate of exports ... etc. However, the most commonly used indicator in this connection is the debt-service ratio.

The debt-service ratio is defined as "total debt-service (repayments of principal and payments of interest) on external public debt as a percentage of exports of goods and services."[6] There are, however, difficulties in interpreting the figures. Since data on debt-service only account for actual debt repayments during any given year, a country that has not met all the contractual repayments would appear to have lower debt-service in relation to other countries. This flaw can be overcome if the contractual rather than the actual debt

repayments is related to foreign exchange earnings during the particular year. The debt-service ratio reflects a given economy's ability to alter its structure by transforming increasing proportions of domestic savings into foreign exchange through raising the share of exports in national income or by reducing importation by successful import-substitution industrialization programme or, more often, a mixture of both. In the literature, "the debt-service ratio is one of the most common rules of thumb related to assessment of debt-servicing capacity."[7]

Other indicators of the position of a country's debt comprise with per capita income and its growth rate, the ratio of foreign capital inflow to debt-service payments, exports growth rate, the ratio of imports to reserves .... These indicators, besides reflecting the ability of the country to service its debt and to acquire further loans, also reflect the actual performance of the economy and its extent of structural flexibility.

The debt-servicing capacity of a country is often used as an indication of the creditworthiness of that country by both official and private lenders. Also, private foreign investors may not be readily willing to undertake further investment in a country with low debt-servicing capacity. Such a situation may even lead to the loss of 'approved status' with consequent difficulties for trade, for example, the withdrawal of E.C.G.D. cover in the case of Britain. The size of foreign assistance may subsequently decline unless measures are

undertaken by lending sources to ensure a continuous flow of resources to this country.

Measures that could ease the consequent undesirable economic pressures on a country with debt difficulties may take different forms. Among these are:- the provision of more external capital resources in grant form; the cancellation of past debt obligations; more multi-lateral aid on more favourable terms; the alteration of the terms of past loans by extending maturity and grace periods; and reducing interest charges thereby increasing their 'grant elements.' These remedies are not alternative policy options, but they can form an important part of a total package to deal with the debt problem of a certain country.

The preceding paragraphs examined the difficulties that could face a developing country which depends on the support of foreign aid in development finance. The following section will discuss the present situation in the developing countries by attempting to answer certain questions which are directly related to the 'debt debate'. Such questions include:- whether developing countries have borrowed too much in the past which makes it inevitable for the indebtedness issue to come to the surface as one of the main challenges to the development of the Third World at the present time. If not, then, is there a global debt crisis? But, if this problem is not common to all developing countries, then what is the justification for a global generalization if it is supported only by the experience of a few countries? At the same time, if we accept the rationale that there are real potential dangers from

the present rates of debt accumulation, then we should inquire into the elements that contribute to this situation. Finally, what are the possible alternative options that could - hopefully - reduce the magnitude of this problem and prevent similar situations from occurring in the future?

The remaining parts of this chapter attempt to present answers for the above questions. Before proceeding with that, it is essential to be aware of how much significance we should attach to the different ratio indicators in determining whether a certain country is actually facing or in fact likely to face future debt difficulties. In particular, we need to inquire into the circumstances which would inevitably lead to a debt problem and the particular situations where foreign debt can be perceived to be a problem. Financial ratio indicators have various limitations which suggest that they are of limited use unless substantiated by further evidence which incorporates other aspects of the particular country. The following paragraphs consider the main problems encountered in utilizing such ratio indicators and others which are usually associated with the determination of the debt servicing capacity of a given country.[8]

(i) Most of the ratio indicators utilized in determining the debt-servicing capacity of a country include information on debt as an independent variable although it is generally acknowledged that such information usually suffer from many flaws, particularly noticeable is the limited scope of their coverage. For instance, the frequently used United Nations data on foreign indebtedness of developing countries

include only public and publicly-guaranteed loans of an original or extended maturity of over one year and also provide insufficient information on short-term loans and those private non-guaranteed loans which bear more than one year maturity. This implies that such ratio indicators are likely to underestimate the size of foreign debt and hence overestimate the present debt-servicing capacity of a given country. (ii) The ability to forecast debt-servicing difficulties on the basis of analyses of past behaviour may be severely limited because of the structural shifts that normally take place over time in a typical developing country. It is therefore essential to combine these ratios with thorough consideration of the situation of a particular country at any given period of time rather than to rely solely on long-term projections based on the past pattern of behaviour. (iii) A case of rescheduling is generally believed to be the culmination of debt-servicing difficulties but this may not always be true for two main reasons:- (1) There are alternatives to formal rescheduling which may indeed indicate a debt problem, such as refinancing and restructuring, emergency control on foreign exchange and trade and major balance of payments support. (2) It is necessary to distinguish between voluntary and involuntary rescheduling as the former could indicate efforts to increase foreign resource transfers rather than being due to balance of payments difficulties. Therefore, rescheduling is not necessarily an indication of debt-servicing difficulties. (iv) There is a need to incorporate the different factors which enter in determining the debt-servicing capacity of a given country. For example, in addition to the conventional financial ratio approach which emphasizes that debt

problems arise as a result of fluctuation in export earnings, there are also monetary aspects, such as over-valuation of domestic currencies and inflation, which are deemed to increase demand for imported goods, cause export stagnation and in turn lead to a rapid accumulation of debt. (v) A given ratio may be insupportable for some countries but not for others due to differences in levels of development, varying growth rates, relative size of the external sector ... etc. For instance, one country may be facing a debt-service ratio of 20 percent, but this may not have a significant adverse impact on its economy or on its ability to service foreign debt and to acquire more foreign capital. This may be because it can easily transform the excess of domestic saving over investment into foreign exchange by either adding to exports or reducing imports or by both. In contrast, another country which happens to face a similar debt-service ratio may experience severe debt difficulties because of the backward nature of its economy and the shortage of domestic savings or otherwise its inability to transform an increasing proportion of the latter into foreign exchange because of binding structural constraints.

Generally speaking, the above factors limit the significance of inter-country comparisons solely based on financial ratio indicators. There is always a need to consider the particular characteristics of individual developing countries and the special factors that determine its debt-servicing capacity. Despite their shortcomings, such ratios serve as a supplement to an in depth qualitative country analyses.[9] Chapter 12 will touch on many of these issues in relation to the debt

position of the Sudan and will consider the various policy options that face the country in that connection.

11.2. The Sources and the Magnitude of Foreign Resources Inflow into the Developing Countries

The growing concern about the possible adverse effects of a rapid accumulation of foreign debt by developing countries on their development programmes and on the continuity of aid inflow into these countries has brought into focus the whole question of foreign resource transfers into developing countries and their effective contribution. The main issue in this connection is whether developing countries (as a group) have borrowed too much in relation to their absorptive capacity. The establishment of evidence to support this theme or the contrary could provide a basis for discussion on the indebtedness problem of developing countries. Also, such evidence could provide an answer to questions on whether this is a common problem to all developing countries at the present time or just a problem for a few countries. Before going into a detailed discussion of these matters, there are a few points that deserve mentioning about the adoption of an 'aggregate approach' to the debt problem and its policy implications.

There are great differences among developing countries with regard to resources endowment, choice of leading sectors, development performance, size of foreign resources inflow and hence the nature and magnitude of foreign indebtedness. Because of these factors, it would be misleading to treat the debt problem in a global manner. Instead, a

case-by-case approach can most usefully bring out the causes and the further implications of foreign indebtedness on individual economies. This approach is more informative on the particular countries which face debt difficulties because it helps to identify the multitude of factors that have combined to create such a situation. However, the 'aggregate approach' to indebtedness has the merits of affording an early warning about a potentially widespread situation which might be damaging if it is not accommodated in its early stages. It also provides information on the direction of indebtedness which helps in assessing the over-all debt position of developing countries and in indicating the common causes of that problem and hence a general framework for its solution could be established. In fact, early indications on the issue of indebtedness has led to a series of dialogues between the advanced and developing countries focusing on aid and trade.[10]

The question previously raised about whether the debt problem is an outcome of an excessive borrowing by the developing countries has been widely discussed in finance and development literature. For example, the general causes of debt difficulties were identified by the World Bank, as early as 1968, as:

> "excessive use of short-term debt such as suppliers' credits; inadequate increase in exports due either to a lack of proper incentives or to unfavourable changes in external market conditions; or an insufficient volume of aid on appropriate terms. In some countries there has been a combination of the above factors. Unsatisfactory management of over-all economic and financial affairs has in certain cases aggravated debt servicing problems."[11]

The present section examines the source-structure of foreign resource transfers into developing countries from 1970 to 1976 and simultaneously focuses on other directly related aspects to the debt issue in an attempt to identify the main causes of debt difficulties. Table 11.1. shows the total commitment and disbursement 87 non-oil producing countries[12] from all lenders during the period from 1970 to 1976. It is evident that the absolute amounts of both commitment and disbursement have increased since the start of the period under review. However, there were annual fluctuations during years particularly in 1974 when the impact of the first major increase in oil prices and its subsequent implications were felt by the non-oil exporting developing countries.

The source break-down of table 11.1. shows that private commitments, which include suppliers' credits and credits from international financial markets as well as other obligations to private lenders, was 5.1 percent lower in 1975 compared to 1974. There was no evidence that the size of private lenders' lending to non-oil producing countries was declining amid the growing concern that some developing countries may be facing debt difficulties. Despite the reduction in 1975 commitments compared with 1974 and a decrease in the annual rate of increase of disbursement by nearly half in that year, private lenders have maintained a marginally fluctuating share in the total capital inflow into this group of developing countries.[13] The percentage share of government-to-government bilateral aid has however been on the decline. This is particularly evident in the case of

disbursement when in 1970 bilateral aid constituted 40.4 percent of total aid to these countries but in 1976 it was only 27.0 percent of that. International Organization maintained a percentage share in total disbursement between 15 and 13.1 percent. In contrast, private lenders have increased their percentage contribution over these years.

Table 11.2. shows that nearly half of capital inflow that was disbursed to non-oil producing countries came from private lending sources. These capital resources were obtained on commercial terms. The significant share of private lending has a direct impact on the size and the time-horizon of indebtedness because of the possibility of 'bunching' of maturities. In fact, the Euro-dollar market has increased the size of its lending to non-oil producing developing countries - the percentage share of these countries in the total publicized Euro-currency credits increased from 6 percent in 1970 to 32 percent in 1977.[14] Seiber, M.J. related this rise in borrowing in Euro-dollar markets to factors other than the creditworthiness of the borrowing countries:

> "This marked rise in borrowing in the Euro-currency markets does not owe as much to improved conditions and economic performance in the borrowing countries as it does to developments and change in the Euro-currency markets themselves."[15]

However, he partly related this increase in borrowing by developing countries to the relative stagnation in the flow of official development assistance which resulted in greater demand for other means of external financing.

Table 11.3. shows that the components of private sources borrowing have been changing during the period under review. There is a growing tendency among non-oil producing developing countries to depend on credits from financial markets (loans from private banks and other private financial institutions and publicly-issued and private-placed bonds) whose percentage share in total private lending increased from 48.3 percent to 83.2 percent in 1970 and 1976 respectively in the case of disbursement. In the same manner, there is an increasing reliance on borrowing from private financial institutions versus publicly-issued and privately-placed bonds. The main suppliers of credits to these countries are the European financial institutions.

As mentioned before, the reasons behind the increase in the size of loans and credits, particularly that remarkable increase in the percentage share of private lenders (table 11.2), to non-oil exporting developing countries can be partly explained by the desire of those countries to finance larger development programmes than before and partly to offset the adverse effects on their balance of payments. Table 11.4. shows that these countries faced persistent trade deficits during the 1970-76 period. The trade deficit increased since 1974 partly due to the rise in both cost and size of imports. The index of import to export values was at its highest level in 1975 (it averaged 130.7 for the whole period).

Diagram 11 shows that the trade gap of non-oil producing developing countries has been widening during this period. The deficit

was partly financed by drawing on reserves. Table 11.5. shows that even though the size of total foreign reserves of non-oil producing developing countries was increasing during the period under review, but the rate of increase was sharply reduced in 1974 and 1975. This period started with a low rate of annual increase, however, during the years other than the two mentioned before the accumulation of foreign reserves was significantly high. The percentage share of these countries in total world reserves has not generally been subject to drastic fluctuations despite the falling annual rate of increase in some years. Therefore, the rise in the percentage share of OPEC members' reserves has been almost entirely at the expense of the industrialized countries' reserves and not non-oil exporting developing countries. The latter could maintain their share largely because of OPEC members' aid channelling.

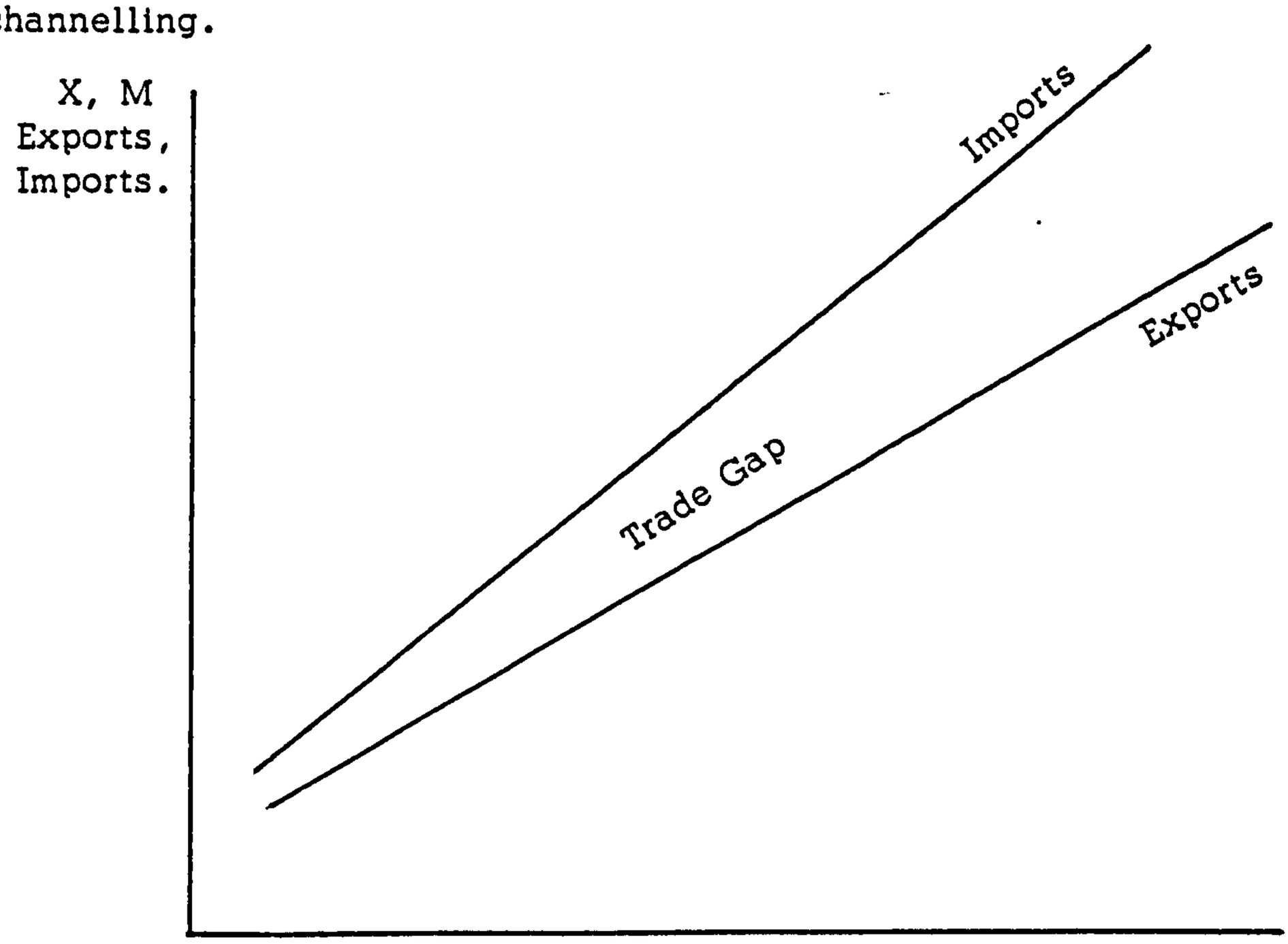


Diagram 11 : The trend line for Imports and Exports of non-oil producing Developing Countries (1970-76).

Based on data in table 11.4.

Table 11.6. compares the reserve/import ratios for the above three groups of countries. This ratio exceeded 100 in 1974-76 in the case of oil-producing countries. During 1974 and 1976 the percentage share of these countries into total world reserves was one-fifth and one-quarter respectively (table 11.5). The reserve/import ratios for non-oil developing countries witnessed a decline during some years. Almost the same fluctuations occurred to the industrialized countries' ratios. The average percentage ratio for the 1970-76 period was 29.2 for industrialized countries, 29.7 for non-oil exporting developing countries and 90.9 for oil-exporting countries. In the next chapter these ratios will be compared with those for the Sudan.

Table 11.7. shows the percentage share in net transfer of resources to developing countries of the different lending sources (see appendix 7). For the group of 94 developing countries, bilateral aid remained the largest contributor during the years under consideration. But 1976 witnessed a reduction of 14.3 percent relative to 1975 and so its percentage share fell from 50.7 percent in 1975 to 39.1 percent in 1976 mainly because net transfers from private sources had increased by 37.5 percent relative to the preceding year. High-income developing countries (per capita income of 801 U.S. dollars and above) were dependent on private lending sources for more than 50 percent of foreign capital transfer. 1974 recorded a surprise fall of private sources transfers to this group of developing countries amounting to 40 percent in comparison with 1973.

One of the interesting characteristics of the structure of foreign capital transfers to developing countries is that countries with per capita income of 800 U.S. dollars or less were highly dependent on official sources for aid, unlike the relatively advanced developing countries which were more dependent on private sources of capital. The increasing size of short-term loans from private sources has important implications for the question of debt service. About 70 percent of foreign capital inflow into the 'most seriously affected developing countries' (those most affected by the upsurge in the prices of oil and manufactured goods) came from bilateral sources. Private sources contributed marginally to this group of countries in comparison with other sources.

Official multi-lateral aid fell below that from bilateral and private sources both for all developing countries and for any particular category. Since IDA is the main contributor to multi-lateral aid and is known for the 'softness' of its loans, there has been a general feeling that if more resources had been channelled through this Association to the developing countries, then indebtedness would not have reached its present levels. This,and other issues will be examined in the forthcoming section when we discuss the full implications of foreign indebtedness.

As mentioned before, private sources contributed only marginally to the total amount of capital transfer to the least-developed countries and the 'most seriously affected developing countries.' Their lending activities were rather concentrated on the high-income developing

countries which included oil-exporting nations. With the unanticipated rise in oil prices in 1973 and the implications having been felt in 1974, the net transfer of capital to oil-exporting countries fell sharply in 1974 with private sources showing a negative sign which means that there was a net outflow of capital. Developing countries experienced an increasing net transfer of resources which stood at more than three times in 1976 relative to 1970. During the period being analysed, 1975 was a record year for foreign resources inflow for all categories of countries, but the high-income group of countries (which includes most oil-exporting countries) was an exception.

On the whole, the net transfer of resources to developing countries has been growing in size during the period 1970-76. Private lenders provided more resources to the 'better-off' developing countries. Among the possible reasons for this preference by private sources is the relatively larger size of the latter countries' foreign sectors which could, presumably, enable them to service the high cost of short-term borrowing. If that is so, these countries should not face any major debt-service difficulties and can obtain further loans from private sources.

11.3. The Accumulation of Debt

> "Most of foreign funds obtained by less-developed countries are in the form of loans and, therefore, the growth process is almost inevitably accompanied by indebtedness." [16]

If the size of foreign indebtedness could have been accommodated

within the on-going development processes without having an appreciable adverse impact on foreign capital transfer (and hence on the international economic order), the question of developing countries' debt would not have generated the present world-wide concern. The 'debt debate' is based on an analysis of the present structure of capital and technology transfer to developing countries and/or the factors that lie behind the economic conditions of certain developing countries that exhibit certain characteristics: They could not raise domestic resources for developmental purposes to levels sufficient to permit a gradually declining dependence on foreign aid over a given time horizon. Also, they could not change the structure of their economies in a way that would increase foreign exchange earning and reduce or eliminate the indebtedness constraint.

For the purpose of a brief aggregative analysis of developing countries' indebtedness, the following indicators will be utilized:- (i) the rate of debt accumulation; (ii) debt-service repayments in relation to outstanding debt; (iii) the debt-service ratio.

Table 11.8. shows that the outstanding debt (disbursed only) of non-oil producing developing countries has been increasing at an annual rate ranging from 14.4 percent to 23.5 percent for the period 1970 to 1976, with an average annual rate of growth of 19.25 percent. The same pattern is depicted when undisbursed balances are added to outstanding debt; the range of annual change being from 15.1 percent to 29.4 percent with an average for the whole period of 19.7 percent. So, the rate of increase of outstanding debt tended to accelerate over

time with an even faster rate in the years 1974 onwards as one would expect following the oil crisis. The size and the annual rate of increase of outstanding debt provide information on the general trend of debt accumulation that accompanies the increase in the size of capital inflow, but, by itself, is an inadequate indicator of the debt situation.

Table 11.8. also shows that the total debt-service increased by 35 percent in 1973, but this pattern did not persist for long, and in 1974 it increased by only 11.1 percent. As debt-service is composed of both principal payments and interest charges, any changes in the conditions of existing loans (either by extending maturity periods or by any other arrangements that would defer such payments) will affect the total amounts to be repaid at the end of each year. The interest payments' component of debt-service increased from 30.6 percent in 1970 to 40 percent in 1976 and the level of 1976 was more than double that of 1970. As a result of the changing composition of debt that was discussed in reference to table 11.5, the composition of interest payments has been affected. Because of the increase in the size of debt owed to private creditors and the fact interest charges on these loans are higher than onofficial loans (see table 11.9), the interest payments component of total debt-service increased remarkably. Since the phenomenal increase in private lending only started in 1974, much of this upsurge has yet to be reflected in amortization payments.

Table 11.10. utilizes the debt-service ratio as an indicator of mounting debt problems. It is a comparison between the least-developed

and the more advanced developing countries. The foreign aid source-mix of these two categories of countries is, of course, quite different. While the former primarily depends on official aid, the latter borrows significantly from private creditors. Despite the fact that the least-developed countries normally obtain loans on more favourable terms compared with those for other developing countries, there is not much difference in the debt-service ratios between different groups of countries as reported in table 11.10.

The present data on debt-service of the least-developed countries must be treated with caution because some of these countries - such as Comoros, Bangladesh and the People's Democratic Republic of Yemen became independent very recently and hence no separate data was provided for the pre-independence period which is part of the period under review. Also, some of these countries have relatively high total debt-service which distorts the cumulative position of the group. For example, the 1975 increase in total debt-service (31.8 percent relative to 1974 level) was partly caused by Bangladesh and the Sudan when the annual increase for these two countries was 177.8 percent and 60 percent respectively. However, 1975 witnessed a slow rate of increase of exports (2.8 percent) and so the debt-service ratio jumped to a record of 11.62 percent. It is evident from table 11.10 that the least-developed countries were experiencing relative high debt-service ratios in the last three years of our time-series.

The relatively "better-off" developing countries experienced a record level of exports in 1974. But the pattern slightly changed in

1975 when exports stood at a lower level than that of the previous year and that was accompanied by a drastic fall in the annual rate of increase of total debt-service. The debt-service ratio showed a tendency to decline over the last three years, contrary to the least-developed countries. Among the reasons for the rising level of exports of this group of countries is the inclusion of oil-producing countries. Although the debt-service ratio is higher when oil-exporting countries are excluded, its pattern of change over the years is almost similar.

The average debt-service ratio for the 'least-developed countries' over the entire period is 9.72 percent compared with 8.89 percent for countries with '801 U.S. dollars per capita income or more' and 9.82 percent if oil-exporting countries are excluded from the latter group. In relative terms, there may not seem to be striking differences between the ratios of the least-developed and the more advanced developing countries because the performance of the export sector is normally taken into consideration by lenders, particularly private sources. Also, the terms of foreign borrowing differ between different groups of developing countries. Since borrowing from private sources is of a relatively short-term nature, one would expect those countries with large proportions of such a type of borrowing to face unprecedented increases in their total debt-service.

An important factor that has an impact on the real value of foreign debt of a given country is the unanticipated rate of inflation.[17] The anticipated rate of inflation is reflected in the terms of borrowing particularly in private financial markets via interest charges. The

The unanticipated rate of inflation causes losses to creditors by devaluing the values of annual debt-service receipts and the real values of debt outstanding on their accounts with other countries. This implies that the grant element of foreign loans should increase in real terms. Therefore, the unanticipated rate of inflation will understate the real values of debt-servicing to creditors. But recipient countries may not be better-off only because this may also affect their terms of trade and hence widens their current account deficits. If inflation is anticipated and borrowing carries an inflation premium, then, unless export earnings increase as world commodity price level increases, the debt-service burden may appear more severe than it is likely to be.[18] Therefore, the full effects of an unanticipated rate of inflation depends on the annual variations in export earnings and import payments in individual countries and the level of indebtedness. This means that some countries may eventually benefit from the unanticipated rate of inflation.

In conclusion, it is evident that there are convincing reasons for the recent concern about foreign indebtedness of developing countries. There is an upward movement in their annual total debt-service and particularly interest payments. The most important variable in this connection, that is, the rate of export growth has been subject to annual fluctuations while imports has been steadily rising. Despite the recent concern, there is however no conclusive evidence that there is a 'Third World debt crisis', but data is only indicative. Certain developing countries may be facing debt problems.

11.4. What to do about Indebtedness?

With the growing size of indebtedness partly as a result of more short-term borrowing by developing countries, the question of how to prevent it from exerting adverse effects on both donor and recipient countries has come to the fore. The answer to this question is in the long-run relevant to all recipient countries, but is crucial to those countries which are at the present time facing debt-service difficulties. There are various possible alternative measures that could ease and ultimately reduce the level of indebtedness to a manageable size. The focus of the inquiry should always be on the variables that are directly related to the question of debt-servicing. Since debt-service is usually paid in foreign currencies, the burden on the foreign sector is greater than on the rest of the economy. However, the interaction of the different economic variables means that the performance of the foreign sector is a function of the over-all state of the economy. The ability to increase the size of domestic savings is crucial because unless all means are effectively used to raise domestic funds in order to narrow the savings gap, the transformation of an increasing proportion of the former into foreign exchange may not be possible. This should not be taken to imply that governments should cause unnecessary hardship to their citizens by squeezing substantial parts of incomes to finance development. Each country would be better-off if it seeks ways and means that would suit its own economic circumstances. Foreign exchange budgets should be carefully drawn in light of individual countries foreign sector performance, the need for imported capital and essential consumer

goods, the size of foreign aid and the contractual repayments obligations and finally the long-term resources requirement of the economy. Unless these competing claims on foreign exchange are appropriately scrutinized, any country may find itself in a situation of severe foreign exchange shortages. Foreign aid should not be regarded as a cheap way of financing development, but instead, a temporary measure to make up for some unavoidable shortages. Another aspect is the provision of basic infra-structure which is generally resource demanding: both to establish and maintain. If we take the least-developed countries as a group, we find that they are facing the task of restructuring their economies and of providing basic development requirements. Since these basic social and economic undertakings would pave the way for more productive utilization of resources, but are either unproductive - in the strict sense of financial terms - or are characterized by long gestation periods, then foreign aid in forms of grants and soft loans would be necessary to avoid the emergence of an unmanageable debt.

The above discussion may not seem to be of so much relevance to the present 'debt debate' because the question is 'what to do about indebtedness now?'. But without considering the whole question of development financing and the appropriate remedies, the debt could become unmanageable again in the near future if the present situation is, after all, contained. At the present time, there is considerable concern among lending sources about developing countries' indebtedness because that could have damaging effects on the continuity of development

assistance inflow into developing countries in general and the composition of its supply sources. This problem has been particularly evident following the increased participation of private lenders. Discussion of debt difficulties in international forums led to general agreement on the gravity of the present situation in certain developing countries and to agreement on the necessity for lenders to adopt specific measures that could reduce the magnitude of indebtedness.[19] At the same time, action is expected from the recipient countries who face debt difficulties. They need to implement economic policies that should help them to avoid falling again into similar debt traps, once the present problem is contained. The success of any set of remedies would depend, not only on the willingness of all lenders to help in accommodating this problem but also on the determination of both sides to take positive steps to avoid future escalation of indebtedness problems.

There are a variety of different economic measures that can be adopted by lenders in order to ease present debt difficulties. They all involve alterations of the terms of past loans. Chief among these are:- (i) rescheduling; (ii) refinancing; (iii) postponement, and (iv) cancellation.[20] The efficacy of any of these measures depends on the specific circumstances of the indebted country and the size, structure and composition of its outstanding debt.

(i) Rescheduling means that repayment provisions of an existing loan are to be altered so that the annual size of repayment is reduced. (ii) Refinancing means that a country would seek more aid

in order to be able to pay the annual contractual debt-service. Refinancing is a commitment by donors to extend more loans than before so that part of this capital would be used to service past loans from the same sources. In this case, a country may borrow from a particular source with the view that some of this capital would be repaid back as debt-service on past debts. An example in this connection is when a country borrows from the British government to repay some British banks the amounts of debt-service that is due during the current year. One of the dangers of relying on refinancing is the possibility of using short-term borrowing to service long-term loans. This could aggravate the debt situation in the near future.

Rescheduling and refinancing are relief measures that give the recipient countries time to re-evaluate the whole situation of foreign indebtedness and to undertake the appropriate policies that are intended to avoid future repayments difficulties. There are, however, dangers if the recipient countries insist on one or both of these measures since this may have unfavourable repercussions on the lenders' willingness to extend further loans on a significant scale because of fears of future debt difficulties. Also, if future requests by a recipient country for similar treatment should be turned down, it may act unilaterally to reschedule its debt as was threatened by Ghana in 1972.[21] Rescheduling and refinancing, of course, do not cancel the existing claims on the recipient country's resources but only defer them.

(iii) Postponement of all or part of annual debt-service may be possible when loan terms contain provisions for that, or if both the

donor and the recipient agree to that in the wake of debt difficulties. Such provisions add to the 'softness' of the particular loans and act as built-in-measures to defuse any considerable debt accumulation problems that may arise because of these types of loans. Postponement was practised by Turkey in 1959, Ghana in 1966 and Indonesia in 1966 with the tacit assent of their creditors.[22]

(iv) Cancellation means writing-off past loans by donors. It applies, if at all, to official bilateral aid. This alternative, although it may seem appealing to indebted countries, should be examined with great care: (1) If one or a few donors should agree to cancel their claims on past loans to help in reducing the impact of debt difficulties on the recipient's development programme, there are, however, no guarantees that this will be the case. Other donors might not respond in the same manner and so this capital may be transmitted to service their debts. (2) If donors appear to be lenient and can easily cancel debts, this may encourage more recipient countries to seek debt relief and to avoid some critically important domestic policies in this connection by indefinitely depending on foreign aid. In any case, the effectiveness of cancellation would depend on the size of repayment that is being cancelled and its source of origin. Cancellation can partly be applied flatly to all developing countries irrespective of the level of each individual country's foreign indebtedness. It may face resistance by the public opinion on donors' side.

Each of the above measures can be undertaken separately or in combination with one or more of the others. In certain cases, a

mixture of various measures might be appropriate because of the diverse structures of loans and their end-use. However, the adoption of any of these measures depends on the willingness of donors to do so rather than the desires of borrowers. All recommendations other than the above-named ones contain, in one way or another, elements of one or more of these proposals. An example is the establishment of 'special funds' to ease the foreign exchange shortages of developing countries funded by the industrialized and the oil-exporting countries.

If it is accepted that there is 'Third World debt crisis', one of the most appropriate remedies may then be a 'broad and generalized relief.' However, the analysis of the outstanding debt and the related variables showed that although there are sufficient grounds for the growing concern about the recent trends of debt accumulation by developing countries, there is no evidence to support the thesis that there is a global debt problem that is affecting all developing countries in the same manner. Therefore, generalized relief might not appeal to donors since it would not distinguish between those countries which face critical debt problems and those which do not. Arguably, a case-by-case approach to ease this problem would best achieve the purpose of assisting those most affected developing countries.

An institutionalized framework by the United Nations' specialized agencies to provide information on the size of indebtedness of individual countries and to propose policies to ease that problem was in fact suggested by the developed countries in UNCTAD's Fourth Session.[23]

That Conference passed a resolution calling on bilateral donors to convert all past loans into grants to countries designated as 'least-developed countries' (those countries most seriously affected by the upsurge of manufactured goods, oil prices, the land-locked countries and small islands). It also suggested that international multi-lateral donors should increase the grant element of their future loans, alter the terms of existing loans more favourably and provide more technical assistance to these countries.

There was a general feeling in UNCTAD (IV) that it may be difficult in the present circumstances for those countries to meet in full their contractually fixed repayment obligations arising from loans from private sources. So, there was need to renegotiate the terms of existing loans in order to reduce the size of indebtedness to manageable levels. However, the least-developed countries are not, anyway, heavy borrowers from foreign private banks and financial agencies because there was extreme concentration of this type of lending among the few 'better-off' developing countries.[24] With this in mind, it seems that the less fortunate developing countries could get more benefit from an official bilateral-multilateral approach to alter the structure and composition of foreign aid.

Following UNCTAD (IV), some developed countries announced the conversion of their past loans into grants and declared new policies towards future assistance to least-developed countries. First among developed countries to adopt the former policy was the United Kingdom followed by Sweden, Switzerland and Canada.[25] The significance of

this policy and its ultimate impact on the outstanding debt of the concerned developing countries depends on the present contribution of bilateral sources to total aid and the percentage of the total annual debt-service that arises from loans from this source. Its impact could generally be limited unless other sources alter the terms of existing loans and provide more concessionary loans in future.

In Manila (UNCTAD V, 1979), the developing countries proposed the establishment of an 'International Debt Commission' to oversee international arrangements for debt relief in the broader context of development. While no final agreement was reached on this matter, it was felt necessary that UNCTAD should continue with its present policy of elaborating guidance for debt relief.[26] There were proposals for a so-called new international economic order to accommodate the recent developments in the economic relations between the developed and developing countries but no specific agreement was reached on this matter. Alternatively, both have acknowledged

> "the need for a new kind of lending facility that falls half-way between the essentially short-term conditional lending by the IMF and the long-term project loans of the World Bank. This financing gap is thought to require medium term programme finance to support Third World Nations with deep structural problems."[27]

Developing countries' representatives were calling for a 'new international economic order' on the understanding that this would imply some structural changes rather than a system that would offer more of the same. The reasons for the lengthy yet inconclusive negotiations

in order to reach an agreement on future economic order is the multiplicity of issues that are involved. While developing countries may be worried about foreign aid, indebtedness, terms of trade ... etc. the developed world is also worried about, say, energy, trade prospects and the effectiveness of aid. The problem of indebtedness is just one of the symptoms of the malaise of the present international economic order. It cannot be eliminated unless interrelated aspects are remedied.

Progress towards shaping a new forum that could govern the relationship between rich and poor countries is encouraging. The Conference on International Economic Co-operation (1975) resulted in the establishment of a 'Special Action Programme' in order to provide loans on 'highly' concessionary terms to meet the urgent needs of low income countries facing problems of transfer resources.[28] On the other hand, OPEC established a special fund (the number of countries contributing to this fund increased since 1973) to assist developing countries to overcome foreign exchange difficulties. All these measures have positive effects on the magnitude of indebtedness.

In addition to that, the existing international multi-lateral agencies could play a significant role in assisting low-income developing countries. But the ability of the World Bank and its affiliates to extend more loans on softer terms is certainly limited. If their role is to be extended, more resources are, indeed, needed. These resources would presumably come from the advanced countries and OPEC members.

11.5. Conclusion

The foreign indebtedness of developing countries is a cause of general concern but the problem of some of these countries appears so grave that their development progress might be severely endangered. Most developing countries may not be in a position to reduce the present levels of their imports beyond certain limits because this will lead to lower levels of development investment and also lower levels of income which may necessitate further import cuts. The growth rate of the developing economies cannot be significantly reduced to overcome debt difficulties because of the various political and economic implications of that.

The question of indebtedness has raised, among other things, many aspects of capital and technology transfer to developing countries. The existing structure of foreign aid needs to be re-examined. The bilateral-multilateral-private mix of foreign aid needs to be altered in favour of more soft multilateral aid. Also, the programme - project composition of aid should be considered so that the demerits of tied aid can be avoided. Developing countries should, as far as possible, defer from using short-term borrowing either to finance long-term projects or repay outstanding debts.

Most developing countries (non-oil exporters) have been affected by the increases in goods and fuel costs during the 1970's. But the 'least-developed countries' are badly affected by these changes in the structure of international economic relations.[29] Movements towards

restoring a new international economic order to embody the recent changes are encouraging. In the meantime, there is need to reconsider the outstanding debt-service of the badly-affected developing countries. Unless the debt problem is viewed in relation to the over-all development progress of Third World countries and the relationship between developed and developing there is nothing to stop it repeating itself in future perhaps with different dimensions, even if the present situation is finally contained.

Notes and References

1. The debt issue came under a wide scrutiny only when it became clearly evident that certain developing countries might not be capable of meeting all or substantial proportions of their foreign debt-servicing obligations and hence default may be inevitable and/or their current development programmes may be badly affected as a result of that, unless specific measures were undertaken to reverse the trend. This matter was discussed in the various UNCTAD meetings which started in 1964. The debate on the so-called 'debt problem' of developing countries gathered momentum by the 1970's with many experts' discussion papers and subsequent recommendations by the Trade and Development Board of UNCTAD. This issue also dominated the growing body of literature on economic development where the prime focus, among other things, has since been on the causes, implications and cures of foreign indebtedness.

2. United Nations (1970); International Development Strategy: Action Programme of the General Assembly for the Second United Nations Development Decade, Department of Economics and Social Affairs, New York, Paragraph 48.

3. The total net flow of resources from DAC member countries to developing countries and international multilateral agencies as a percentage of the former's GDP was 0.92% on average for the years 1970-78. ODA was 0.33% on average for the same period of DAC GDP which falls short of the 0.7% target advised by the United Nations. These calculations are based on data from OECD Reviews 1976-79, Development Co-operation, Paris. (Revised figures appearing in the latest issues are taken into account).

4. These characteristics are typical to those of least-developed countries.

5. Saini, K. and Bates, P. (1978); Statistical Techniques for Determining Debt-Servicing Capacity for Developing Countries: Analytical Review of the Literature and Further Empirical Results, Federal Reserve Bank of New York, Research Paper No. 7818, New York, p.2.

6. World Bank (1978); World Debt Tables: External Public Debt of Developing Countries, Vol. 1, Doc. No. EC-167/78, p.19.

7. Feder, G. (1978); Economic Growth, Foreign Loans and Debt Servicing Capacity of Developing Countries, World Bank Staff Working Paper, No. 274, Washington D.C., pp.1-2.

8. The analysis in this section draws from the Research Paper by Saini, K. and Bates, P. (1978); op.cit.

9. ibid., p.19.

10. In UNCTAD, the developing countries formed 'the Group of 77' to press for more foreign assistance and further preferential treatments in trade with full regard to the position of their foreign indebtedness and its implications. The ultimate aim of these discussions is to draw useful conclusions for policy purposes in an attempt to assist developing countries by various means including the transfer of more resources,and at the same time get the donor countries to implement policies to achieve that objective. See, Curry, R.L. Jr. (1979); Africa's External Debt Situation, Journal of Modern African Studies, Vol. 17, No. 1, pp.15-28.

11. World Bank, Annual Report 1968, Washington, D.C., Extracts reprinted in Meier, G.M. (1970); Leading Issues in Economic Development, 2nd ed., Oxford University Press, New York, pp.269-73. Also, in this context see, Aliber, R.Z. (1977); Living with Developing Country Debt, Lloyd's Bank Review, No. 126, pp.34-44.

12. The prime focus on the non-oil exporting developing countries as a distinct group was a result of the developments that took place in the late 1973 with regard to the upsurge of oil and manufactured goods prices and the implications of this on the balance of payments of these countries. However, it is not a general rule that all these countries are affected in the same manner but those which largely depend on exporting primary products are indeed the mostly affected. The successive years witnessed sudden increases in the aggregate current account deficits of these countries. Thereby, most of them resorted to financing parts of these deficits by foreign borrowing which involved an increasing proportion of commercial loans than before. These developments and their subsequent effects added to fears of a global debt crisis in the Third World and led to several official debates on the so-called 'LDC Debt Problem', World Development, Special Issue, Vol. 7, No. 2, p.145.

13. Abbot, G.C. (1979); International Indebtedness and the Developing Countries, Croom Helm, London, Chapter 2, pp.49-98.

14. Franko, G.L. and Seiber, M.J. eds. (1979); Developing Country Debt, Pergamon Policy Studies No. 36, Pergamon Press, Chapter 3 on 'Debt Escalation: Developing Countries in Euro-Currency Markets', Table 3.2, p.46. The percentage share of country groupings in the total Euro-market lending operations was as follows in 1970 and 1977*

Year	Industrial Countries	Non-oil LDCs	OPEC LDCs	Communist Countries	Total
1970	89.6	6.3	3.2	0.9	100.0
1977	41.5	32.4	17.9	8.2	100.0

* Percentages are recalculated by the present author to remove the discrepancies in total.

15. ibid., p.43.

16. Feder, G. (1978); Economic Growth, Foreign Loans and Debt Servicing Capacity of Developing Countries, World Bank Staff Working Paper, No. 274, Washington, D.C., pp.1-2.

17. UNCTAD Secretariat (1977); Some Aspects of the Impact of Inflation on the Debt Burden of Developing Countries, Doc. No. TD/AC.2/4, Reprinted in World Development (1979), Vol. 7, No. 2, pp.135-43.

18. Aliber, R.Z. (1977); op.cit., p.37.

19. UNCTAD Secretariat (1977); Review of Policy Issues and Developments in the Field of External Indebtedness of Developing Countries Since the Fourth Session of UNCTAD, Doc. No. TD/AC.2/5, 30.6.1977.

20. Abbott, G.C. (1975); The Case for Cancellation, Inter-Economics, Vol. 10, No. 7, pp.217-21.

21. In 1972, the then Ghana's President announced his country's intentions to repudiate parts of its debt and unilaterally to reschedule the remaining parts unless the major donor would agree to renegotiate the terms of the past loans because, as he put it, the country was not in a position to meet all the annual debt-servicing obligations. For further details see Krassowski, A. (1974); Development and the Debt Trap: Economic Planning and External Borrowing in Ghana, Croom Helm/ODI, London, p.147.

22. Abbott, G.C. (1975); op.cit., p.218.

23. UNCTAD Secretariat (1977); Doc. No. TD/AC.2/5, op.cit., Annex II and III.

24. Franko, G.F. and Seiber, M.J. eds. (1979); op.cit., Table 13.1. p.272. It is shown that the top ten countries accounted for 71.9% of the gross borrowing from international banks by non-oil exporting developing countries and only three of them accounted for 51.5% of the grand total.

25. Midland Bank Review (1978); Official Debt Relief for the Less-Developed Countries, Winter Issue, pp.2-6.

26. Laishley, R.D. and Laidlaw, K. (1979); Progress Towards a New International Economic Order, Standard Chartered Review, September Issue, pp.2-5.

27. ibid., p.4.

28. The Conference on International Economic Co-operation (CIEC) held in Paris during the years 1975-77 brought together the representatives of eight industrial countries and nineteen developing countries to examine the various means of co-operation between the more advanced and less-developed countries in the framework of what came to be known as 'North-South Dialogue'.

29. For the experiences of African Countries where we find the majority of least-developed countries in the Third World see, Curry, R.L. Jr. (1979); op.cit.

TABLE 11.1

Total Commitment and Disbursement of Foreign Loans and Grants to 87 Non-oil Producing Developing Countries: 1970-76 (Million U.S.$)

Years	Commitment	% Increase over previous year	Disbursement	% Increase over previous year
1970	12286.9	-	9091.5	-
1971	12422.4	1.1	10143.5	11.6
1972	16131.2	29.9	12128.2	19.6
1973	21186.4	31.3	16305.1	34.4
1974	34212.6	61.5	22079.0	35.4
1975	34997.4	2.3	29498.4	33.6
1976	42337.1	21.0	33133.3	12.3
1976 % / 1970	-	244.6	-	264.4

Source: World Bank (1978); World Debt Tables: External Public Debt of Developing Countries, Doc. No. EC-167/78, Vol. I, pp.42, 44.

TABLE 11.2.

Source-Break of Table 11.1. by Percentage Share of Each Category and the Annual Percentage Change

Years	Governments*		International Organizations*		Total Private	
	% Share	% Change	% Share	% Change	% Share	% Change
1. Commitments:						
1970	36.8	-	20.5	-	42.7	-
1971	35.0	-4.0	22.6	11.7	42.4	0.4
1972	37.6	39.5	20.8	19.6	41.6	27.4
1973	30.4	6.1	19.5	23.1	50.1	58.2
1974	33.7	79.3	17.7	46.1	48.6	56.7
1975	33.8	2.4	21.1	22.5	45.1	-5.1
1976	30.8	10.4	18.2	4.3	51.0	36.7
2. Disbursement:						
1970	40.4	-	13.8	-	45.8	-
1971	40.4	11.5	15.0	20.6	44.7	8.9
1972	35.6	5.3	14.3	14.7	50.1	34.1
1973	32.0	21.2	13.8	29.2	54.2	45.4
1974	29.4	24.4	13.8	35.1	56.8	42.0
1975	33.6	52.6	13.7	32.7	52.7	24.0
1976	27.0	-10.0	13.1	7.6	60.0	27.8

Source: As for Table 11.1, pp.74, 76, 90, 92, 106 and 108 (Calculated by the Author).

* Both represent 'Official Lenders'.

TABLE 11.3.

Component Breakdown of Private Lenders' Share of the Total Commitment and Disbursements to 87 Non-oil Producing Developing Countries: 1970-76 (Percentages)*

Years	% Share of Private Lenders	% Share of the Components of Private Lending				% Share of the Components of Financial Markets Lending		
		Suppliers' Credits	Financial Markets	Others**	Total	Financial Institutions	Bonds	Total
1. Commitments:								
1970	42.7	41.7	52.6	5.7	100.0	77.4	22.6	100.0
1971	42.4	29.2	69.7	1.1	100.0	84.2	15.8	100.0
1972	41.6	24.2	75.7	0.1	100.0	82.8	17.2	100.0
1973	50.1	19.0	80.9	0.1	100.0	89.7	10.3	100.0
1974	48.6	17.5	82.2	0.3	100.0	93.2	6.8	100.0
1975	45.1	18.1	81.8	0.1	100.0	93.0	7.0	100.0
1976	51.0	15.5	84.5	0.01	100.0	92.5	7.5	100.0
2. Disbursement:								
1970	45.8	44.5	48.3	7.2	100.0	79.6	20.4	100.0
1971	44.7	29.9	70.0	0.1	100.0	81.7	18.3	100.0
1972	50.1	26.2	73.7	0.1	100.0	82.2	17.8	100.0
1973	54.2	20.6	79.4	0.04	100.0	86.5	13.5	100.0
1974	56.8	18.0	82.0	0.01	100.0	92.1	7.9	100.0
1975	52.7	18.6	81.2	0.2	100.0	93.6	6.4	100.0
1976	60.0	16.7	83.2	0.1	100.0	91.9	8.1	100.0

Source: As for table 11.1, pp.122, 124, 138, 140, 154, 156, 170, 172, 186 and 188. The first column is taken from table 11.2.

* Author's Calculations.

** Other Private Lenders. Their percentage share fell drastically in 1971 and the successive years. In some years it was very low and so is reported in two decimal points.

TABLE 11.4.

The Indices and the Annual Change of Export Proceeds and Import Expenditures of Non-oil Producing Countries*: 1970-76 (Billion U.S.$).

Years	Imports (M)	% Change	Exports (X)	% Change	Resource Gap	Index (M/X) %
1970	46.950	-	37.038	-	-9.912	126.8
1971	52.832	12.5	38.557	4.1	-14.275	137.0
1972	58.117	10.0	46.268	20.0	-11.849	125.6
1973	79.787	37.3	67.370	45.6	-12.417	118.4
1974	130.986	64.2	97.801	45.2	-33.185	133.9
1975	138.451	5.7	93.874	-4.2	-44.577	147.5
1976	144.846	4.6	115.393	22.9	-29.453	125.5
Average Index						130.7

Source: IMF, International Financial Statistics, 1979, pp.63 and 67, New York.

* Data is for 'Other Less-Developed Countries' excluding oil-exporting developing countries.

TABLE 11.5.

Comparison of the Percentage Share of Non-oil Producing Developing Countries Reserves with other Categories of Countries: 1970-76

(Million SDR's)

Years	World (Total)	% (Total)	Percentage Share*			% Change of 'other LDCs'
			Industrialized Countries	Oil-Producing Countries	Other LDCs	
1970	93243	100.0	70.6	5.4	14.9	-
1971	123093	100.0	72.1	6.3	11.7	3.6
1972	146558	100.0	66.5	6.9	13.4	36.9
1973	152073	100.0	63.0	7.9	16.0	23.8
1974	179527	100.0	54.6	21.4	14.4	6.1
1975	193785	100.0	53.7	24.9	13.4	0.6
1976	221553	100.0	51.2	25.3	16.3	38.7

Source: As for Table 11.4, pp.44-7.

* Totals do not add to 100 because some categories of countries are not covered by this table.

TABLE 11.6.

Reserve/Import Ratios for Some Categories of Countries:

1970-76 (Percentages)

Years	Industrialized Countries	Oil-Producing Countries	Other LDCs
1970	31.1	51.7	29.6
1971	40.8	74.5	29.6
1972	37.5	79.4	36.8
1973	29.9	72.3	36.9
1974	22.0	145.0	24.2
1975	22.3	110.2*	22.0
1976	20.8	103.3*	29.0
Average	29.2	90.9	29.7

Source: As for Table 11.4, pp.44-7 and 66-9.

* This decline could partly be explained by the process of recycling 'Petro-dollars'.

Note: SDR's were converted into U.S.$ at the rates quoted in the IFS.

TABLE 11.7.

Source Breakdown of Net Resource Transfers to Developing Countries for the Years 1970, 1973-76 (Percentages)*

Cagegories of Countries	1970	1973	1974	1975	1976
Developing Countries(94)	100.0	100.0	100.0	100.0	100.0
OB(1)	60.7	51.1	52.4	50.7	39.1
OM(2)	15.6	14.6	18.4	17.0	14.4
PS(3)	23.7	35.3	29.2	22.3	46.5
801 U.S.$ and Above(27)	100.0	100.0	100.0	100.0	100.0
OB	31.9	29.6	30.0	28.4	12.5
OM	13.0	9.0	18.7	12.2	5.0
PS	55.1	61.4	51.3	59.4	82.5
161-800 U.S.$ (48)	100.0	100.0	100.0	100.0	100.0
OB	80.4	77.5	58.2	56.7	56.4
OM	18.5	16.7	14.8	14.7	17.1
PS	1.1	5.8	27.0	28.6	26.5
160 U.S.$ and Below (19)	100.0	100.0	100.0	100.0	100.0
OB	84.4	62.4	67.1	66.8	62.2
OM	16.0	28.7	25.7	29.7	32.5
PS	-0.4	8.9	7.3	3.5	5.3
Least-Developed Countries** (25)	100.0	100.0	100.0	100.0	100.0
OB	69.3	70.2	67.9	71.5	69.0
OM	28.1	24.0	24.1	26.1	28.4
PS	2.6	5.8	8.0	2.4	2.6

P.T.O.

Contd.

Most Seriously Affected LDCs *** (39)	100.0	100.0	100.0	100.0	100.0
OB	78.4	73.8	68.6	74.1	69.4
OM	21.0	26.8	30.0	22.9	25.1
PS	0.6	-0.6	8.4	3.0	5.6
Oil-Exporting Countries (11)	100.0	100.0	100.0	100.0	100.0
OB	52.1	46.2	104.1	29.1	10.4
OM	4.3	6.6	48.1	13.0	11.6
PS	43.6	47.2	-52.2	57.9	78.0

Source: UNCTAD Secretariat (1978); Debt Problems of Developing Countries: External Indebtedness - A Statistical Note, Doc. No. TD/B/C.3/148, 19.9.78, Geneva, pp.22-6.

* Calculated on the basis of data in Appendix 7.

** Countries with the lowest per capita income in the world. Named in the above source p.21.

*** Developing countries most seriously affected by the upsurge of manufactured goods and oil prices.

(1) OB = Official Bilateral

(2) OM = Official Multi-lateral

(3) PS = Private Sources

TABLE 11.8.

Annual Percentage Change of the Outstanding Public Debt* of 87 Non-oil Producing Developing Countries from All Lenders, 1970-76.

1970	1971	1972	1973	1974	1975	1976	$\left(\frac{1970}{1976}\right)\%$	Average Annual Change
1. Debt Outstanding (Disbursed Only):								
-	15.4	14.4	18.4	23.5	21.3	22.5	186.8	19.25
2. Debt Outstanding (Including Undisbursed Balances):								
-	15.1	15.6	18.7	29.4	17.9	21.6	192.6	19.7
3. Total Debt Service:								
-	10.7	16.5	35.0	11.1	18.5	14.9	163.5	17.8
3.1 Principal Payments:								
-	10.1	16.0	36.0	4.4	11.8	12.6	128.2	15.2
3.2 Interest Payments:								
-	12.2	17.9	32.7	26.2	30.8	18.7	243.6	23.1
	Average 20.9			Average 25.2				
4. 3 as Percentage of 1:								
11.7	11.3	11.5	13.1	11.8	11.5	10.8	-	-
5. 3 as Percentage of 2:								
8.6	8.3	8.4	9.5	8.2	8.2	7.8	-	-
6. 3.2 as Percentage of 3:								
30.6	31.0	31.3	30.8	35.0	38.6	40.0	-	-

Source: As for Table 11.1, pp.38, 46, 50 and 52.

* Arising for loans bearing an original or extended maturity of one year or more.

TABLE 11.9.

A Comparison Between the Average Interest Charges on Loans from 'Official' and 'Private' Lenders to 96 Developing Countries: 1970-76 (Percentages)

Years	Total 'Official'	Total 'Private'
1970	4.0	7.2
1971	4.5	7.2
1972	4.3	7.4
1973	4.3	8.2
1974	4.3	8.4
1975	4.9	8.3
1976	5.6	7.9

Source: World Bank (1978); World Debt Tables, op.cit., p.217.

TABLE 11.10.

Debt-Service Ratio and Annual Changes in its Components for 1970-76 (Million U.S.$)

1. Least Developed Countries:

Years	Total Debt Service	% increase over previous year	Exports	% increase over previous year	Debt-Service Ratio (%)
1970	139.0	-	1618	-	8.59
1971	170.8	22.9	1654	2.2	10.33
1972	191.8	12.3	2145	29.7	8.94
1973	229.8	19.8	2582	20.4	8.90
1974	261.3	13.7	2883	-11.7	9.06
1975	344.5	31.8	2964	2.8	11.62
1976	393.4	14.2	3716	25.4	10.59
Average Debt-Service Ratio					9.72

2. '801 U.S.$ Per Capita GNP and Above' Countries:

1970	3078.8	-	32840	-	9.38
1971	3463.2	12.5	35609	8.4	9.73
1972	4571.4	32.0	41366	16.2	11.05
1973	5868.1	28.4	60575	46.4	9.69
1974	8109.4	38.2	113554	87.5	7.14
1975	8385.0	3.4	110114	-3.0	7.62
1976	9686.4	15.5	126961	15.3	7.63
Average Debt-Service Ratio					8.89

P.T.O.

Contd.

3. '801 U.S.$ and Above' (Excluding oil-exporting Countries)*:

1970	2584.6	-	24721	-	10.46
1971	2707.8	4.8	25516	3.2	10.61
1972	3234.3	19.4	30415	19.2	10.63
1973	4120.3	27.4	43739	43.8	9.42
1974	5093.8	23.6	64648	47.8	7.88
1975	6201.2	21.7	63055	-2.5	9.84
1976	7224.3	16.5	73126	16.0	9.88
Average Debt-Service Ratio					9.82

Source: Total debt service figures were gathered by the Author from World Bank (1978); World Debt Tables ..., op.cit., pp.52-3. Exports figures were taken from IMF, International Financial Statistics Year Book, September 1979.

* Eight countries are excluded.

CHAPTER TWELVE

Foreign Indebtedness and Economic Development in the Sudan

More than 50 percent of the projected development expenditure during the Six Year Plan (1977/78-1982/83) was expected to come from external sources including official loans, commercial borrowing and private capital. It was pointed out that "as debt servicing is likely to pose a difficult problem in the coming years, future loans and credits must be negotiated with a close watch on the debt-servicing profile aimed at containment of the liability within manageable limits".[1] The Plan estimated that about one-quarter of the total foreign aid to the Sudan during the six year period would be used to finance contractual debt-service obligations. Present debt difficulties are mainly the result of the size and form of borrowing particularly over the past few years. Faced with a mounting debt problem, the authorities focused on revising the development programme for the second half of the Plan to give priorities to the unfinished, the export-oriented and the infra-structural projects.[2]

The present chapter is an attempt to evaluate the debt position of the Sudan by examining its structure from both the donor side and the receiving activities. It utilizes the financial ratio indicators examined in the previous chapter and also the various factors that have simultaneously affected the economy during the same period to assess

the origins and extent of the present debt difficulties. Finally, it discusses the implications of the indebtedness problem on future development progress and also makes suggestions that could be useful in reducing the extent of future debt difficulties.

12.1. The Outstanding Debt: A Source and a Sectoral Analysis

The Sudan had amassed, by the end of 1977, an outstanding debt that was almost five and a half times the low 1966 level. Table 12.1. shows that the rate of debt accumulation during the years 1974-77 was substantially higher than before. In this connection, the level of outstanding debt had nearly doubled by the end of 1973 in relation to the 1966 level. In contrast, it was 230 percent at the end of 1977 in relation to the 1973 level but only 58 percent more than that at the end of 1974. The 1974 level was exceptionally high being more than double that of the preceding year. The average annual rate of debt accumulation during the period 1966-77 was 21.3 percent. Debt outstanding on the account of all donors had significantly increased but more particularly from the developed market economies and the Arab countries. For the first time, the Sudan secured a 200 million Euro-dollar loan guaranteed by the Saudi Arabian Monetary Agency which was directed to the Sudan Development Corporation. Borrowing from the Arab countries included an increasing proportion of cash loans primarily to finance the growing balance of payments deficits.

Three-quarters of the outstanding debt at the end of 1977 was owed to bilateral donors. International and regional multi-lateral

agencies together accounted for less than one-fifth of total outstanding debt. International multi-lateral agencies (excluding the IMF) alone accounted for only 11.5 percent of that. Although the above data may under-estimate the magnitude of the outstanding debt, it is clearly evident that a substantial proportion of the Sudan's indebtedness arises from bilateral loans. This suggests that a consortium approach by the major bilateral donors is vital in the attempts to overcome the present debt difficulties, as will be revealed later.

The share distribution of the outstanding debt can be further explained by examining the position of cumulative repayments and the size of undisbursed balances. Table 12.2 reveals that the percentage of undisbursed balances to the outstanding debt was 56.5 percent for international agencies compared with 13.5 and 3.7 percent with respect to the developed market economies and the Arab Funds respectively. The wide variation in undisbursed balances ratios as between different donors may be particularly attributed to the diversity of loans terms and their ultimate end-uses. The World Bank provided the Sudan with various long-term loans largely for investment in the agricultural and the transport sectors. The time period required to complete a large-scale project, as in agriculture, quite often proves to be longer than the original estimates due to difficulties incurred in project implementation, including the appearance of unanticipated bottlenecks. Since a large proportion of the loans from the World Bank and its affiliates is provided for such long-term projects, not surprisingly the percentage of unutilized funds is higher for this group of donors relative to others

(see table 12.3).

In contrast, the developed market economies and the Arab countries provided the Sudan with a variety of loans ranging from long-term interest-free loans to short-term credit facilities and cash loans. The latter are normally sought to overcome foreign exchange crises and to support the development budget and are, therefore, likely to be drawn on schedule. Almost 80 percent of the outstanding debt arising from loans provided by the developed market economies resulted from credit facilities extended to enable the country to import necessary capital goods, and in some cases consumer goods as well. A substantial proportion of this aid is tied to purchases from the given donor's markets, so undisbursed balances are unlikely to be sizable unless project implementation is subject to delays. The lack of effective co-ordination between different donors which finance a certain project, or the shortage of domestic counterparts funds, may also lead to the build-up of unutilized funds. In addition, group-financed projects may be subject to considerable delays caused by a failure of one or more of the main donors to fulfil all their commitments. In addition to the build-up of undisbursed balances, these factors also led to the tying of domestic resources.

A variable that is directly related to the size of the outstanding debt is the total amount of cumulative repayments to a particular donor in respect of a given loan at the end of each year. Of course, the level of such repayments is not necessarily related to the efficient utilization

of the loan or the rate of return on the project. Where repayment instalments are associated with the direct returns of the aid-financed project, cumulative repayments with respect to a given loan may be a useful economic indicator for the effective use of the borrowed capital. This inevitably is not a general practice because foreign loans are also used for activities such as road construction, education, health ... etc., which do not yield direct returns, although they are essential pre-requisites for prospective development. The pace of cumulative repayments to a certain donor is usually governed by the original terms of the loan, any agreement to alter such terms, and above all, the capacity of the recipient country to service its foreign indebtedness. The availability of foreign exchange is certainly an important factor in determining the latter.

It can be seen from table 12.4. that the cumulative repayments to the international multi-lateral agencies amounted to 61.1 percent of the total outstanding debt on their account with the Sudan by the end of 1977 compared with 38.4 and 22.7 percent for the developed market economies and the Arab bi-lateral loans respectively. The World Bank group is among the long-standing donors to the Sudan. Therefore, by 1977 most of the 1960's loans' grace periods had expired, and so the size of annual repayments obligations was growing at a faster rate than that for other donors. In contrast, the Arab countries significantly increased their lending activities to the Sudan only by the early 1970's. Hence the percentage ratio of cumulative repayments to the outstanding debt with regard to these countries is expected to remain on the low side

until most of the grace periods expire. It is however, notable that cash loans constituted about one-third of the total outstanding debt on the account of Arab countries with the Sudan and hence the likely method to meet the arising repayment obligations is refinancing.

Table 12.5. shows that the transport/communication sector was the largest single contributor to the total outstanding debt at the end of 1977 being an almost one-quarter of that total. This certainly under-estimates this sector's contribution since some of the debt obligations arising from the item 'purchase of machinery and equipment' may also be attributed to this sector. Loans for agriculture added 14.2 percent to the total outstanding debt, and those used for industrial development were below 2 percent. Cash loans and oil facilities together comprised over 30 percent of that total, however this percentage can be expected to increase during the forthcoming years since the short-term difficulties that present themselves in liquidity and foreign exchange crises are likely to persist.

The over-all structure of the outstanding debt shows that infra-structure development including transport, accounts for a significant proportion of the present debt, but further basic investment in that sector still appears to be necessary which will inevitably involve a high foreign exchange component. On the whole, the current economic difficulties; namely, the shortage of foreign exchange which had led to the depletion of the country's international reserves in the past are likely to persist for a while in the light of the difficulties that constrain

the expansion of exports compared with a growing size of imports.

Table 12.6. reveals that the percentage share of private lenders in total outstanding debt increased from 15.6 percent in 1970 to nearly 40 percent at the end of 1976. Therefore, about 60 percent of debt was owed to official lenders; of this, more than 70 percent was in respect of foreign governments' bi-lateral aid to the Sudan. Suppliers' credits lending had also been increasing in size over the period under consideration, to represent about one-quarter of total private lending contribution to the outstanding debt at the end of 1976.[3] The total of outstanding debts on account of bi-lateral donors were recently influenced by the acts of cancellations that were pledged by some countries in Western Europe.[4] It is likely that the future composition of the outstanding debt would be altered towards more private debts as the trend during the 1970-76 period clearly indicates.

A comparison between loan terms from official and private lenders brings out the particular implications of borrowing from each of these sources. Table 12.7. throws light on two phenomena:- the diversity of loan terms as between private and official donors and the overall changing pattern of loan terms over time.

(i) There are great differences between the terms of private and official loans which can be seen by examining the elements that constitute the terms of a certain loan. These elements are: interest charges; the maturity, and the grace periods; all of which are combined in a single indicator known as the grant element of the loans. Loans

from private creditors normally bear higher interest rates, allow shorter maturity and grace periods and hence contain lower grant elements than official loans. The cited table shows that official loans had a grant element of 62.6 and 53.1 percent on average for 1971-73 and 1974-76 respectively in contrast to 12.0 and 0.9 percent for private loans. Figures for 96 developing countries reveal that official loans have contained a grant equivalent of 45.0 and 31.0 percent for the years 1970 and 1976 respectively while that in respect of private loans is only 12.0 and 7.0 percent.[5] Coupled with an increasing reliance on loans from private lenders, this differential implies a sharply rising trend in the effective burden of indebtedness. The above figures indicate that private loans to the Sudan became much harder on average compared with the average of such loans to developing countries as a whole, whereas the opposite was the case for official loans. This highlights an important source of the growing debt difficulties which the country started to face during these years.

(ii) A second feature revealed in the table 12.7 is the general tendency towards the hardening of loans over time. The average grant element from both sources decreased between the two periods, with private loans hardening at a faster pace compared to official loans. The rising cost of borrowing can be seen in the context of the prevailing charges on commercial lending. The hardening of loan terms may however indicate that lenders are incurring some risks by extending credits to developing countries with low potential capacities to meet their future debt obligations. Although there seems to be a general

tendency for private loans to harden over time, the pace at which this is taking place differs from one country to another.[6] Heavy reliance on such loans would lead to high debt-service in a short period partly because of maturities bunching. This is particularly worrying for countries whose prospects of increasing their export proceeds are not, at the moment, encouraging.

Finally, the structure of the Sudan's indebtedness shows that by 1977 only about one-third had a maturity period of more than 15 years. A large proportion of outstanding debt (63.1 percent) therefore arose from loans with maturity periods between 5 and 15 years. Figures clearly indicated that the proportion of long-term loans was decreasing over the years while that of short-term loans (with less than 5 year maturity) was increasing.[7]

The evidence presented so far indicates that the Sudan's foreign indebtedness is largely to bi-lateral donors. However, the country is increasingly resorting to the international capital market which has shown itself more willing to lend to developing countries and this has increased the share of private loans in the total foreign capital inflow. Borrowing from private sources normally takes the form of short-term facilities to enable the country to maintain a target level of imports. Problems would certainly arise if short-term borrowing were used to finance long-term projects. The result could be that debt would accumulate well before the given projects yield adequate returns or have the desirable impact on the economy. However, the most common factor behind short-term borrowing is to offset the impact of a rising

debt-service primarily caused by maturities bunching which itself arises from heavy reliance on short-term loans in the past. These issues will be discussed in the final section of this chapter.

12.2. Some Indicators of the Extent of Sudan's foreign Indebtedness

Like its predecessor, this section seeks to explain the debt position of the Sudan by utilizing some of the commonly used aggregate ratio indicators that are directly related to the capacity to service debts, namely:- (i) debt-service ratio; (ii) debt-service/import ratio and (iii) reserve/import ratio. Debt-service repayments are viewed in this connection as the direct cost of foreign loans. A recipient country faces competing claims on its available foreign exchange from both imports and debt-service obligations. Ceteris paribus, a country with an inadequate amount of foreign exchange to pay for both of them, might find it necessary to decide whether to default on debts and hence to maintain its desired level of imports, or alternatively to follow a tied import policy that would only ensure some minimum levels of imports which enables it to achieve a set of minimum levels of economic and social objectives that it reckons desirable, and at the same time could meet its contractual debt obligations. Such an approach implies that the debted country's import capacity ought to be tested against the need to satisfy essential consumption needs and to sustain normal economic activities. The minimum import requirement could be determined on the basis of the amounts of imported capital goods needed for an effective utilization of the existing productive capacity and the

capacities that are in the process of being established. Items that should be considered include the required amounts of fertilizers, spare-parts, industrial raw-material and construction equipment. In accordance with this, a country can be said to have a debt problem if two conditions prevail: First, if the prospective import-capacity falls short of what is needed for the attainment of its minimum economic and social objectives. Second, if debt-service repayments are likely to absorb an annually . increasing proportion of the available foreign exchange. The second condition has to be interpreted differently in varying circumstances particularly in the short- and the long-run. In the short-run, when a country finds it difficult to meet its committed foreign exchange outlays, the exchange problem will dominate no matter whether debt-service is large or small. Things look different in the long-run when a country finds that its prospective import-capacity falls short of the adequate level that is desirable to maintain minimum economic and social objectives. The ratio of the debt-service payments to total external outlays then assumes greater significance. There is, therefore, little sense in saying that such a country has an immediate debt problem if the debt-service repayments are relatively small and only make a minor difference to the total import-capacity.[8]

A quantitative analysis of the debt position of a given country necessarily rests on the assumption that there is economic efficiency in the allocation and use of foreign resources. Such an evaluation should, therefore, be substantiated by qualitative judgements on the performance of the economy that is receiving foreign aid. This approach

will be adopted in assessing the debt position of the Sudan.

(i) Table 12.8. shows that the debt-service ratio of the Sudan had been on the increase during the 1970-79 period. It was however subject to sharp fluctuations resulting primarily from changes in the size of the total debt-service more than from fluctuations in export proceeds. In fact, the average percentage rate of increase of exports for that period was 10.5 percent compared with 18.7 percent in respect of total debt-service. This shows that the latter was increasing at a faster rate than the former. It goes without saying that the total export revenue fell below previous levels during both 1974 and 1978 mainly due to the decline in the proportionate contribution of cotton as was noted earlier. The average debt-service ratio for the whole period exceeds one-fifth of the total export proceeds. A comment on the high ratio reported in 1975 is in order. It was the result of the record aid inflow that took place in 1974 of which a large proportion was of a short-term nature. The obvious effects of short-term borrowing is a fast increase in the annual debt-service obligations than should be the case in respect of long-term borrowing. Table 12.9. illustrates this phenomenon by disaggregating the total debt-service into principal repayments and interest charges. It is shown that while interest charges more than doubled in 1974, principal payments increased by less than one-fifth. In my opinion, this situation is open to two interpretations: (1) Since the Sudan had been borrowing from both bi-lateral and multi-lateral sources for quite a long time on long-term conditions and since the size of short-term borrowing had only been

significant very recently, the size and growth rate of the principal component of the debt-service reflects acts of rescheduling, cancellation or deferment of payments during this period as will be seen in the following section. This is true in the light of the fact that as grace periods elapse, the size of annual principal instalments is expected to increase by a rate determined by the length of the maturity periods. In contrast, total principal payments had experienced sharp fluctuations during certain years which lends support to the above interpretation and casts doubt on the usefulness of the debt-service ratio as an analytical tool in determining the debt-servicing capacity of the country. (2) The second interpretation relates to the increase in the size of annual interest charges. The prime cause of that is the increase in the proportionate size of short-term borrowing as is evident from 1974 figures. Generally speaking, any borrowing of short-term nature would have an immediate effect on the size of the interest-charges component of the total debt service, but the impact on principal payments takes time to be seen because of the grace periods that are normally allowed however short the maturity of such loans may be. Added to this, there is a possibility that some long-term loans particularly those financing large-scale agricultural projects such as El Rahad project may have been re-negotiated to soften their terms and to defer the interest payments on the outstanding balances of these loans. The impact of altering loan terms depends on the size of such an operation in relation to the total annual debt-service.

Diagram 12 shows the trend line of the two components of the total debt-service for 1970-77. It is clearly evident that the annual

average rate of change of the total interest-charges is higher than that of principal-repayments.

The average debt-service ratio for 1970-73 is 18.9 percent (table 12.8) in respect of the Sudan compared with an average of 16.1 percent for eight most seriously affected developing countries (as classified by UNCTAD) for the same period, ranging from 27.9 and 24.6 percent in relation to Egypt and India to 4.4 and 1.3 for Ghana and Mali respectively.[9] This indicates that the Sudan is among the developing countries with relatively high debt-service ratios. The Economist quoted an OECD report showing that among the 29 least-developed countries, the Sudan assumed the highest debt-service ratio in 1975 and thereafter argued in favour of total debt-relief for such countries.[10] One reason for this comparably high debt-service ratio

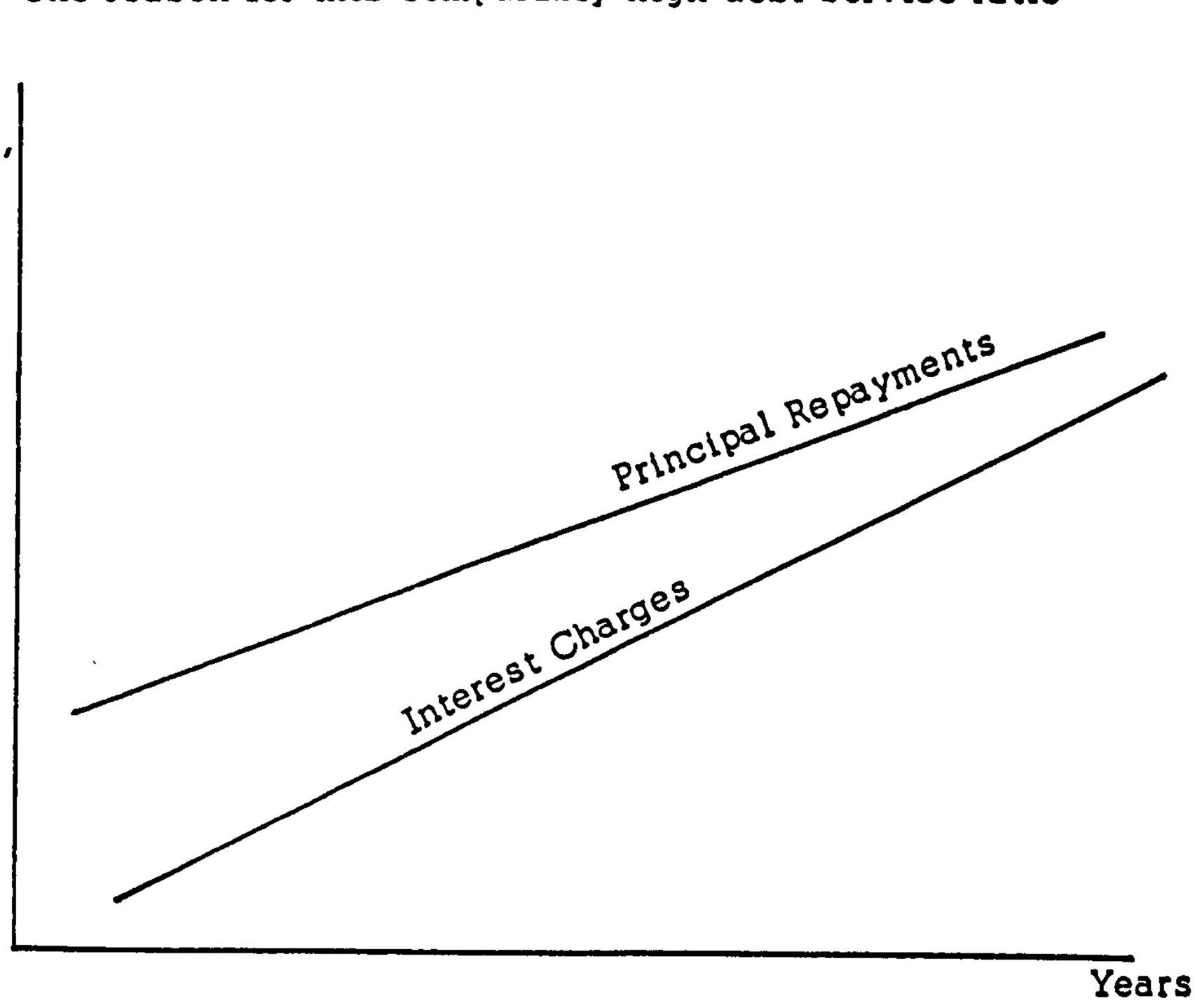


Diagram 12 : The Trend Line for the Components of the Total Debt-Service (1970-77).

Based on data in table 12.9.

may be that the Sudan had access to lending facilities from the oil-exporting countries in the Middle East more easily than most countries in this group. However, this should not in any sense be taken as an indication that the Sudan received more foreign loans compared with other countries but necessarily reflects the forms and the terms of those loans.

(ii) Another indicator that helps to explain the debt position of a country is the debt-service/import ratio. Unlike the debt-service ratio which relates foreign exchange repayments to proceeds, the latter relates two variables that compete for available foreign exchange. A high ratio in that connection indicates that large proportions of the available foreign exchange are being spent on debt-service repayments relative to the size of imports. It also indicates either a slow down on the growth rate of imports or a higher debt-service level than before. Table 12.10. shows that the average debt-service/import ratio for the whole period (i.e. 1970-79) was 18.7 percent. The 1976 ratio was significantly higher than the preceding year due to the fact that that level of imports was 15.8 percent less during that year while the total debt-service increased so marginally. Similarly, since 1977 and 79 witnessed a drastic fall in the total debt-service repayments (because of foreign exchange crisis), a lower debt service/import ratio than the preceding years was therefore reported. The average percentage rate of increase of imports for the period 1970-79 was 17.5 compared with 18.7 percent in respect of total debt-service.

(iii) A further indicator of debt-service capacity is the reserve/import ratio. Table 12.11 shows that ratio for the period 1965-76. The importance of sizable foreign reserves to any economy is beyond doubt. They are an obvious buffer to protect the economy against an unpredicted decline in its foreign exchange earnings. Developing countries which depend on a few primary products for a substantial part of their foreign exchange revenue are likely to face such a situation more than countries with diversified exports. Therefore, it is necessary for such developing countries to build up sizable foreign reserves that can be used if a critical need arises. However, the size of foreign reserves itself is a function of the availability of foreign exchange, that is, the capacity of the country to increase its foreign exchange proceeds through international trade.

The size of foreign reserves of the Sudan has been deteriorating since the early sixties. The relatively high levels of reserve/import ratios that was maintained during the first few years of the period under review (table 12.11) did not indicate an increasing ability of the country to add to its reserves, but only that foreign loans were used to maintain that position. Although the total reserves were steadily moving in a downward trend, the level of imports was considerably higher in the 1970's than was in the 1960's. The growing deficit on the current account caused by higher levels of imports relative to export earnings was the main factor for the rapid depletion of foreign reserves during the 1970's.

As was mentioned before, 1974 witnessed a record foreign capital inflow which resulted in more than doubling of foreign reserves, a trend that was short-lived. Heavy borrowing during that year was partly used to finance imports. Although that high level of foreign capital inflow was not maintained during the successive years, the level of imports remained relatively high which eventually caused debt difficulties. However, the composition of the Sudanese imports shows that the percentage value of imported machiner, spare-parts and transport equipments was 25.8 percent in 1974 increasing to 45 percent in 1976. This shows that any substantial reduction in imports in the face of debt difficulties would have a significant adverse effect on the development programme. This particular issue will be examined in the next section in connection with the over-all implications of foreign exchange crises.

Finally, table 12.12 compares the reserve/import ratio of the Sudan with some relevant groupings of developing countries. It is clear that the Sudan had maintained a ratio that was more or less similar to the average of comparable groupings during 1965. But this parity was not maintained during the 1970's when Sudan's ratios lagged far behind these averages for the reasons mentioned before.

This section has produced evidence on two broad issues:-

(i) The size of debt-service repayments had been growing at an increasing rate in recent years with the impact of harder loan terms on Sudan's indebtedness clearly evident from the relative increase of the interest charges in the total debt-service. This means that the country may find

itself in the middle of a deep foreign exchange crisis before its development process finally matures. In that case, there are important implications for the target growth rate of the economy. This may also lead to the distortion of the existing economic priorities in the sense that the available foreign exchange would then have to be used to achieve short-term objectives rather than the fulfilment of the long-term development strategy.

(ii) There is an overwhelming importance for a flexible foreign sector so that short-term measures designed to reduce the size of the trade gap can be effective. This would also enable the country to re-allocate the available foreign exchange whenever it falls below the projected levels to ensure the least adverse impact on the development programme. Such an ability should help in keeping foreign indebtedness at manageable levels.

The analysis of the financial ratio indicators with respect to the foreign debt of the Sudan suggests that if the present trend of import increase, of export stagnation and of high levels of foreign borrowing (largely on short terms) continue, the country would certainly face critical debt difficulties far more than at the present time. The implications of that would be further cuts in the development programme and a rapid accumulation of unpaid debt-service.

12.3. The Impact of the Growing Size of Foreign Indebtedness on the Prospects of Development, and Alternative Policy Options

The debt problem cannot be separated from the character of

Sudan's development strategy. This is because the development path chosen has a high foreign exchange component, as was revealed earlier. The reasons for that are; partly the insignificance or total lack of indigenous capital goods, plus the fact that the total contribution of the industrial sector to GDP is relatively quite small (less than 10 percent). However, the present industrial development strategy itself is also the most evil in that connection, being highly capital-intensive. Present levels of industrial production fall short of basic domestic needs in a rapidly growing market. Therefore, an increasing pressure on the balance of payments is expected to prevail up to the point where domestic industrial production could be sufficient to meet a larger proportion of the required consumer goods.

The issue of foreign indebtedness has come into focus because the available foreign exchange cannot meet both the import bill and the debt-service repayments. As long as the country can neither increase its exports substantially - a possibility that seems limited in the present circumstances - nor significantly reduce its import bill by partly holding down the growth rate of the economy, debt-service will constitute a major challenge to the budgeting of foreign exchange available. If all repayments commitments are honoured, the level of imports would have to be reduced drastically or otherwise the inflow of foreign capital be increased considerably. Taking for granted that basic consumer necessities can hardly stand any meaningful reductions due to human, social and political reasons, the axe must fall mainly on imported raw-materials, spare-parts and capital goods. However,

taking into considerations that most of the manufacturing industries, such as chemicals which constitute 10 percent of the total value of imports of the Sudan, depend to a large extent on imported raw-materials, any significant reduction of imports in this direction would lead to an excessive unutilized capacity in this sector and eventually to considerable pressures to import finished goods. Such restriction on imports would certainly create unemployment and also have adverse effects on the future prospects of the industrial development strategy as a whole.

The size of imported capital goods is crucial in achieving the stated development goals. The demand for capital goods is a function of investment projects in agriculture, industry, infra-structure ... etc. The present strategy for agricultural development rests on the establishment of large-scale projects to exploit wide areas of land and to avoid the obvious disadvantages of small-scale production in terms of cost and, most importantly, the ultimate impact on the population. In addition, it is designed to augment exports. This strategy, however, requires heavy capital investment to succeed. The state is taking the lead in agricultural development - as in most developmental activities - by either financing whole projects or joint-ventures involving one or more foreign donors such as the Kenana sugar project.[11] But progress in the agricultural sector cannot be isolated from the growth of other activities in the economy. For example, the improvement of the transport and the communication systems has a direct impact on the growth of agricultural production in terms of

exports, domestic distribution and the availability of seasonal labourers. Another example relates to the suggested industrial development programme: being basically agriculture-orientated, it cannot at all develop in the absence of a successful agricultural programme to supply the necessary material inputs. Therefore, there are direct links between the prospective development programme in each of these sectors. On the question of imported capital goods, it means that any effective reduction in the required amounts of these goods (to maintain existing activities, complete the unfinished projects) would lead to a low growth rate of the economy hence delaying the attainment of a self-sustained growth phase.

So far we have examined the possibility and the implications of reducing the level of each category of imports if the situation arises where debt-service payments represent a relatively large proportion of the attainable foreign exchange and poses difficulties. Conclusions are based on the assumption that the export sector is incapable of growing at a rate sufficient to meet the growing demand for foreign exchange generated by both imports and debt service obligations.[12] The present development strategy could not be expected to contribute a great deal to exports for quite a while. To put it differently, if we assume that the present level of imports is to be compressed to the minimum, but still foreign exchange proceeds fall short of the desired level, then the country would face two alternative policy options and the choice between them would depend on the specific circumstances at the given time:-

(i) The first option would then be to undergo further cuts in imports whose impact would be a reduction in the size of both the ordinary budget and the public sector development budget. This means that less capital would be invested on the developmental activities in which the state is undertaking a large stake and to which the future prosperity of the country hinges. It may also affect the indigenous entrepreneurs by the provision of less infra-structure and also less credit facilities from both the central government and the specialized banks. The development of the rural areas which is crucial in the attempts to reduce regional disparities would have to slow down in favour of the established parts of the modern productive sector. In addition to its economic consequences, such a policy option may prove politically undesirable in the face of the previous commitments to a speedy economic and social development process.

Faced with severe balance of payments difficulties, the Sudanese authorities recently decided to revise the development programme for the period 1979/80-1981/82, in an approach similar to the Interim Programme of Action adopted in 1975/76-1976/77.[13] The three-year programme focuses on completing projects in progress, on improving the performance of the export sector, and in particular on capital investment to ease the bottlenecks arising from the limited capacity of the transport sector. This became necessary in the light of increasing debt difficulties which had adverse effects on the inflow of foreign resources into the country. The prime factor behind this concern, however, is to raise the effective use of capital resources including

foreign loans and eventually to overcome the present debt difficulties by export promotion. The over-all implication of these measures is a slower growth rate of the economy in relation to the targets set in the Six-year Plan. Other measures taken to overcome the present debt difficulties include rescheduling, refinancing ... etc.

(ii) The second alternative policy option is to default on debt. A unilateral approach to overcome the present debt difficulties by default is ruled out in this context because of its adverse implications on the future borrowing. It is, therefore, necessary to overcome the present debt crisis and at the same time to ensure that future foreign capital inflow should not be greatly hampered since that is crucial for the fulfilment of Sudan's development targets. The following paragraphs will consider the possible impact of the different debt-relief methods such as cancellation, rescheduling, refinancing ... etc. on Sudan's indebtedness.

(1) The size of the outstanding debt is partly reduced by the cancellation approach initiated by some advanced countries to relieve the least developed countries from all the liabilities arising from past bi-lateral loans and then to extend aid in the form of grants rather than loans in the future. For example, the Swedish government decided in 1977 to write-off the total of £S.3.4 m. representing its outstanding debt arising from loans to the Sudan.[14] The impact of such an initiative depends on the annual share of such bi-lateral loans in the total debt-service and the prospects of increasing the participation of these countries in future development finance. The available evidence

indicates that only the developed market economies have adopted such an approach to foreign aid. However, unless more bi-lateral donors are willing to follow this approach to relieve the debt of the least-developed countries, it would have a minor impact on the present debt difficulties of the Sudan. This is because a large proportion of Sudan's indebtedness is owed to bi-lateral donors.

(2) Another approach to ease debt difficulties is to seek refinancing of the existing loans. This has to be carefully considered because a refinancing method means an increase in the magnitude of the outstanding debt not for development purposes, but for the settlement of past claims on the available foreign exchange. The most obvious danger comes from an acquisition of short-term loans to finance long-term outstanding claims because such borrowing would add to the annual repayments obligations in the near future. A reasonable approach for the Sudan in that connection would be to assess the situation of the beneficiary activities or projects from each individual loan in order to establish whether such projects will soon be completed and then to what extent will they add to the debt servicing-capacity of the country. If a given project has not been completed and is expected to have a long gestation period before it effectively contributes to the economy, the donors may be willing either to waive present repayments or to provide loans on more favourable terms to finance the arising debt. Such an approach would also help in the re-evaluation of projects currently under construction and thereafter could enable the authorities to avoid the snags that may have happened during a hasty search for financial support in the past.

The Sudan has so far practised two forms of debt refinancing. The first form is to borrow from a bi-lateral donor to repay debts due to agencies in that country, such as the borrowing from the Dutch government in 1977 to meet debt obligations to the Netherland Investment Bank for Developing Countries. In this particular case, the loan from the Dutch government was offered according to the terms normally applied by IDA which meant that they are softer compared with the terms of the loan they were intended to refinance.[15] The second form of refinancing is to acquire a loan from another source specifically to refinance a given debt obligation. For example, the Saudi Monetary Authorities which guaranteed the 200 million Euro-dollar loan agreed to extend a loan to help in meeting the repayments of that loan.[16]

Another possible alternative to the above forms of debt refinancing is to seek long-term loans for the over-all support of the debt-service programme although that might prove hard to find since no single donor may be prepared to provide such loans. In fact, the Saudi government granted the Sudan a 300 million dollar loan in 1979 for a general balance of payments support including debt-service repayments.[17]

(3) The above attempts represent scattered efforts to ease the debt position of the Sudan. In contrast, rescheduling of past loans is apparently an effective way of overcoming immediate debt difficulties. A request in that connection may, however, throw doubts on the country's ability to manage its foreign debt and hence to maintain firm economic policies and must, therefore, be embarked on with caution, and only as a last resort.

An agreement between the Sudanese government and the member countries of the Paris Club was signed in 1979 to provide significant official debt relief to the former. An agreement was also reached on the orderly settlement of overdue obligations amounting to approximately 300 million US dollars.[18] During the course of the same year, the Sudanese government entered into negotiations with foreign commercial banks to reschedule commercial debts. These attempts only help to overcome the present debt difficulties and to ease the pressures on the balance of payments. Debt difficulties will again arise unless the whole approach to foreign borrowing is extensively revised, resources are used more effectively and the envisaged expansion of the export sector is achieved.

The above analysis focuses on the increasing debt difficulties which the Sudan faces at the present time, and examines the implications of the successive measures adopted by the authorities to ease these difficulties. The present debt problem emerges at a time when the country requires still large amounts of foreign resources to fulfil its development targets and to overcome immediate economic problems. It therefore became necessary to scrutinize the present development programme focusing on the completion of the unfinished projects and those which directly contribute to exports as well as the development of infra-structural facilities. This could add substantially to the debt-servicing capacity of the country if it is ensured that such priorities are strictly followed and also projects are efficiently implemented.

On the other hand, the authorities are aware of the adverse effects of debt difficulties on future borrowing and subsequently on the development programme and are determined to avoid future debt crises. The trend to relieve the least-developed countries from past debt obligations has helped in reaching an agreement on debt relief with the major donors in Western Europe. However, it remains to be seen whether these countries will increase their lending to the Sudan on softer terms than before. In the meantime, it is hoped that the Sudan might not face an indebtedness on a larger scale before its economy passes the transitional phases of establishing itself on sound bases.

12.4. Conclusion

The analysis of the indebtedness of the Sudan - using financial ratio indicators and an assessment of the various aspects of the present development programme - reveals that it is facing considerable debt difficulties. This is clearly evident from the sharp rise of the debt-service ratio which almost doubled since 1970, and the marked increase in debt-service/import ratio. In addition, the reserve/import ratio decreased considerably over the past decade. Furthermore, there is a widening gap between export proceeds and import payments, and a slow progress - or lack of it - towards reducing such a gap. Evidence of the increasing indebtedness problem is also found in the persistent foreign exchange crises which forced the authorities to seek cash and budget support loans and this contributed a great deal to the present debt difficulties. Balance of payments support has mainly come from the IMF in the form of various stabilization programmes. Also there has

been an increasing dependence on oil facilities particularly from OPEC members to offset the impact of the rising oil prices on the balance of payments. Although the effect of the latter was global, it had a particularly severe adverse impact on the least-developed countries such as the Sudan where crude oil represented 15 percent of the total value of imports in 1979 compared with only 11 percent in 1978.

The above assessment of the origins and magnitude of the debt problem of the Sudan must be seen against the background of a wide and a justified concern among policy-makers about the progress of development and the ability of the economy to overcome the various obstacles which frustrate that. The performance of the development programme has considerable implications on the capacity of the country to service its foreign debt. The crux of the present development strategy is, of course, to achieve self-sufficiency in basic food-stuffs with an excess for exportation. Until it yields its returns, there will continue to be a growing pressure on the demand side particularly for basic consumption goods which are, at the moment, mostly imported. The inability to satisfy the present demand for certain imported consumer goods reflects an increasing foreign exchange shortage. Unless self-sufficiency in basic consumer needs is achieved in a few years time and exports are diversified, the country will certainly face severe debt difficulties.

Faced with mounting debt difficulties, the Sudanese authorities approached the Paris Club seeking significant debt relief and an agreement

in that connection was signed in 1979. The country has also been financing parts of its debt obligations by special loans particularly from Saudi Arabia. These measures and others should ease the present debt difficulties. However, if the achievement of the development programme remarkably falls below targets, it may be necessary to seek further debt relief from the major donors.

Notes and References

1. The Six Year Plan of Economic and Social Development 1977/78-1982/83, Vol. 1, Ministry of National Planning, Khartoum, p.62, (English version).

2. Bank of Sudan Annual Report 1979, Khartoum, p.88, and the Economic Survey 1979/80, Ministry of Finance, Khartoum, pp.167-8.

3. Suppliers credits accounted for 17.6 percent of the total outstanding debt of 87 non-oil exporting countries arising from loans from private lenders during 1976. Calculated from 'World Debt Tables: External Public Debt of Developing Countries', World Bank doc. EC-167/78, Vol. 1, pp.102, 118.

4. These countries include the United Kingdom, Sweden, Canada and Switzerland.

5. World Bank, World Debt Tables, op.cit., p.217.

6. Similar calculations for Kenya showed that the average grant element of loans from private sources decreased from 11.2 percent for 1971-73 to 8.2 percent for 1974-76. That for Sierra Leone was 10.7 and 1.5 percent for the respective periods. These are only examples to illustrate the point that the terms of private loans are hardening over time, but the pace of that differs from one country to another. For similar information on other countries see 'World Debt Tables', op.cit., pp.218-24.

7. Calculated from the Economic Survey 1977/78, Ministry of Finance and National Economy, Khartoum, p.252.

8. Corea, G. (1976); The Debt Problem of Developing Countries, IDP, Vols. 6-10, No. 9, pp.61-2.

9. Abbott, G.C. (1979); International Indebtedness and the Developing Countries, Croom Helm Ltd., London, Table 3.12, p.123.

10. The Economist (1978); Relief for the Poorest: The rich countries should indeed cancel the official debts of the poorest poor ones, Vol. 266, No. 7018 (March 4-10).

11. The Kenana sugar project is financed by a number of foreign donors, including Kuwait and Saudi Arabia. The construction work is undertaken by European companies. For further details see, New Africa (1979); Sudan Survey, January Issue, p.58.

12. This assumption is particularly valid for developing countries which export a few primary products such as cotton in the case of the Sudan.

13. Bank of Sudan Annual Report 1979, pp.88-91.

14. Bank of Sudan Annual Report 1977, p.41.

15. Ibid.

16. Bank of Sudan Annual Report 1979, p.54.

17. Ibid.

18. Ibid.

TABLE 12.1.

Source Distribution of Outstanding Debt as at 31st of December of Each Year: 1966-77 (£S.m.)

Years	International* Agencies	Developed Market Economies	Arab Funds	Centrally Planned Economies	Regional Agencies	Oil Facilities	Total	Rate of Accumulation %
1966	25.7	11.2	12.8	6.0	-	-	55.7	-
1967	28.0	15.0	20.7	5.7	-	-	69.4	24.6
1968	29.0	18.2	22.3	5.6	-	-	75.1	8.2
1969	32.5	21.5	32.9	4.4	-	-	91.3	21.6
1970	35.3	20.3	31.2	7.1	-	-	93.9	2.9
1971	35.7	15.3	31.7	7.7	-	-	90.4	-3.7**
1972	35.0	19.4	41.1	8.1	-	-	103.6	14.6
1973	31.8	24.9	41.0	10.2	-	-	107.9	4.2
1974	34.4	55.1	100.6	11.4	13.2	10.8	225.5	109.0
1975	39.8	118.7	117.5	10.0	17.7	15.2	318.9	41.4
1976	41.2	113.7	152.7	9.9	24.9	16.5	358.9	12.5
1977	41.1	111.4	153.2	7.7	25.2	17.8	356.4	-0.7
% of 1977	11.5	31.2	43.0	2.2	7.1	5.0	100.0	21.3 (Average)

Source: Bank of Sudan, Annual Reports 1966-77.

* Excludes dealings with the IMF.

** Cumulative repayments were 38% more than the preceding year.

TABLE 12.2.

Undisbursed Balances for the Three Main Donors as Percentage of the Total Outstanding Debt* as at end- 1977.

Major Donors	%
International Multi-lateral Agencies	56.5
Developed Market Economies	13.5
Arab Funds	3.7
All Donors	18.7

Source: Bank of Sudan, Annual Report 1977, pp.43-8.

* Outstanding debt on account of each donor.

TABLE 12.3.

The Distribution of Undisbursed Balances According to Donors as at end- 1977 (Percentages)

Groups of Donors	%
International Multi-lateral Agencies	34.8
Centrally Planned Economies	28.0
Developed Market Economies	22.5
Arab Funds	8.4
Regional Multi-lateral Agencies	6.3
Total	100.0

Source: As for table 12.2.

TABLE 12.4.

Cumulative Repayments to the Three Main Donors as Percentage of Total Outstanding Debt* as at end- 1977.

Major Donors	%
International Multi-lateral Agencies	61.1
Developed Market Economies	38.4
Arab Funds	22.7
All Donors	36.7

Source: As for table 12.2.

* Outstanding debt on account of each donor.

TABLE 12.5.

The Distribution of Public Outstanding Debt at end-1977 by Beneficiary Activities* (Percentages)

Activities	% Share
Agriculture	14.2
Transport	23.7
Industry	1.8
Services	0.3
Electricity & Water Supplies	3.4
Sub-Total	43.4
Purchases of Equipment	25.7
Cash	14.7
Oil Facilities	16.2
Sub-Total	56.6
Grand-Total	100.0

Source: Bank of Sudan Annual Report 1977.

* Excluding Centrally Planned Economies and Dealings with the IMF.

TABLE 12.6.

Percentage Distribution of Sudan's Public Outstanding Debt* by Cagegory of Lenders: 1970-76 (Disbursed Only) (Percentages)

Category of Lenders	1970	1971	1972	1973	1974	1975	1976
Total Official (1)	84.4	86.6	85.6	79.3	63.7	57.5	60.9
Total Private (2)	15.6	13.4	14.4	20.7	36.3	42.5	39.1
Total All	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Governments	58.2	60.8	62.8	65.2	69.0	70.6	72.7
Inter. Organiz.	41.8	39.2	37.2	34.8	31.0	29.4	27.3
Total Official	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Suppliers' Credits	7.1	6.5	4.7	6.0	15.8	20.3	24.8
Total Financial	92.9	93.5	95.3	94.0	84.2	79.7	75.2
Total Private	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: World Bank (1978); World Debt Tables: External Public Debt of Developing Countries, Doc. No. EC-167/78, Vol. II, pp.159-60.

* Includes public and publicly-guaranteed private loans.

(1) Loans from governments and their agencies as well as international organization (including regional agencies).

(2) Includes all forms of suppliers' credits and all types of credits from international financial markets.

TABLE 12.7.

Average Terms of Loans Committed to the Sudan for the Periods 1971-73 and 1974-76

Particulars	Official Creditors		Private Creditors	
	1971-73	1974-76	1971-73	1974-76
Average Interest Rates	1.7	2.9	6.9	9.5
Average Maturity Periods	32.6	27.9	8.6	9.6
Average Grant Element	62.6	53.1	12.0	0.9

Source: World Bank (1978); World Debt Tables ..., op.cit., p.219.

TABLE 12.8.

Debt-Service Ratio of the Sudan for the Period 1970-79

Years	Debt-Service Ratio (%)	Average
1970	16.2	1970-73 (18.9)
1971	20.2	1974-77 (24.0)
1972	23.7	
1973	15.4	1970-77 (21.4)
1974	19.0	
1975	35.1	1970-79 (22.6)
1976	25.1	
1977	16.6	
1978	29.8	
1979	24.5	

Source: Bank of Sudan Annual Reports 1970-1979, Khartoum.

TABLE 12.9.

The Components of the Total Debt-Service: 1970-79 (£S.m.)

Years	Principal	Interest	Total Debt-Service
1970	11.1	5.4	16.5
1971	18.2	4.1	22.4
1972	22.2	5.3	27.5
1973	18.6	5.7	24.3
1974	27.2	9.2	36.4
1975	32.1	19.3	51.4
1976	29.4	23.1	52.5
1977	21.7	16.5	38.2
1978	-	-	64.8
1979	21.5	34.2	55.7

Source: Bank of Sudan Annual Report 1970-79, Khartoum.

TABLE 12.10.

Debt-Service/Import Ratios for the Sudan: 1970-79

Years	Ratio (%)	Average
1970	15.8	
1971	19.6	
1972	22.5	
1973	18.7	18.7
1974	17.6	
1975	18.1	
1976	22.0	
1977	15.5	
1978	22.3	
1979	14.4	

Source: Imports from table 6.11 and Bank of Sudan Annual Report 1979; Debt-Service from table 12.9.

TABLE 12.11.

Reserve/Import Ratios for the Sudan: 1965-76

Years	Ratios* (%)	Average
1965	27.8	1965-67 (25.4)
1966	25.1	1965-69 (21.5)
1967	23.4	
1968	17.2	1970-72 (8.2)
1969	13.9	
1970	7.4	1973-74 (14.3)
1971	8.6	
1972	8.6	1975-76 (3.5)
1973	12.1	
1974	16.5	1965-76 (14.0)
1975	3.5	
1976	3.5	

Source: Imports from table 6.11.

Reserves from table 6.12.

* Figures are to the nearest decimal point.

TABLE 12.12.*

A Comparison of Reserve/Import** Ratios for the Sudan and the Relevant Developing Countries' Groupings for 1965, 70 and 1973 (Percentages)

Years	1965	1970	1973
Developing Countries	31.8	31.4	47.5
Lower-Income Developing Countries	23.3	27.9	27.1
African Countries	22.7	32.0	30.4
Sudan***	22.3	6.2	10.1

Source: World Bank, World Tables 1976, New York, pp.472-4.

* Not comparable with table 11.6 because of different country groupings.

** Imports of goods and non-factor services.

*** Slight discrepancies with table 12.11 due to diverse data sources.

PART IV

CONCLUSION

Sustained economic progress of Third World countries is normally hindered by a multitude of economic, political and social constraints. Their removal is vital to expanded economic growth. One group of development theories focus on the limits to economic growth arising from the inability to mobilize sufficient domestic resources to meet investment requirement of target growth rates. The critical problems which arise in this connection can be elucidated by the two-gap analysis, which suggests the use of external resources to overcome the different sequential constraints, thereby enabling the recipient economy to achieve its target growth rates.

The role of external resources in economic development has come under wide scrutiny, in part using econometric methods where the focus has been to test the relationship between domestic savings and foreign capital inflow and in particular aid. A sustained rate of increase of domestic savings is widely seen as an essential ingredient to economic progress. The most significant conclusion of these studies is that for most of recipient countries foreign capital has resulted in lower rates of increase in domestic savings than would otherwise be obtained. The implications of that are mainly related to the significance of the existing foreign aid programmes in adding to the growth potential of recipient countries. This led to suggestions that aid is detrimental to developing countries' efforts to mobilize domestic resources and to further progress. These conclusions are not however convincing to many economists, but

they raise some important issues in relation to the effective use of foreign resources to promote the development of Third World countries.

In the light of the above discussion, this dissertation has attempted to test the Weisskopf hypothesis in that connection with respect to the Sudan. The econometric test on the Sudan for 1966-77 has produced negative but statistically insignificant correlation coefficient between foreign aid and domestic savings. The negative causal relationship between these two variables examined earlier is not supported in the case of the Sudan. Moreover, our study emphasizes the overwhelming importance of considering the various factors that shaped the economic scene during the above period in interpreting the results of that econometric test.

Most important in that connection was that foreign aid received during the above-mentioned period was predominantly in the form of quick-disbursing support loans for the budget and the balance of payments. The effective disbursement for development projects (which were mostly in infra-structure or in long-term yielding investment) fell well below targets. At the same time, the political instability that characterized that period also contributed to low levels of domestic savings. The pattern of current public expenditure had also been detrimental to development efforts, being largely on those activities least directly related to development. Coupled with low ordinary budget surpluses and poor performance of autonomous enterprises, the latter contributed to low levels of public savings which were the major source of national savings in the Sudan. Foreign aid was, therefore, in response to low savings

and was largely spent to maintain internal and external balances.

The main policy implication of our study is that there is an immediate need for the implementation of economic policies designed to raise the level of domestic savings in the Sudan. These policies should involve tax reform, reduction of government spending on non-developmental activities, re-organization of autonomous enterprises and the establishment of financial agencies to mobilize private savings. These measures should add to the saving potential of the country.

The present dissertation also brings out the scale and character of foreign resource transfers into developing countries in an attempt to identify the main causes of debt difficulties. There has been an increasing nominal transfer of resources from advanced to less-developed countries over the past decades, but it has fallen below the targets accepted in international forums. The process has inevitably been accompanied by debt difficulties whose origins and dimensions vary between different countries; which reduces the ultimate usefulness of inter-country comparisons in that respect. However, an assessment of the structure of outstanding debt for a large group of countries has revealed a similarity in virtually all the prime factors that underlie the present debt difficulties; namely, the composition of foreign borrowing, the loan terms, the performance of the export sector and the structure of imports.

The study has utilized various financial ratio indicators, despite their shortcomings, to depict the extent of the debt problem of developing countries and to identify its causes and effects. It emerged that the

magnitudes of the financial indicators such as debt-service and debt-service/import ratios during the period 1970-76 were not sharply different as between the 'better-off' and the least-developed countries, primarily because the ability of individual countries to acquire more foreign resources is normally related to their debt-servicing capacity broadly determined in relation to the performance of the export sector. In contrast, the level of such ratios differed significantly among particular countries, especially among those designated as least-developed ones. It is clear, therefore, that debt difficulties are at the moment critical for only a few developing countries, mainly those whose ability to increase their foreign exchange earnings is extremely limited.

By contrast, striking differences between groups of countries emerged from an examination of the composition of outstanding debts. Whereas 'better-off' developing countries owed an increasing proportion of their debts to private sources, official donors remained the largest and the most significant contributors to that of the least-developed ones. However, the latter countries had increased their reliance on capital borrowing from private sources, but to a far lesser extent than the former.

The present study arrives at the conclusion that a major cause of debt difficulties of developing countries (which are critical in certain cases) is the sharp increase in the size of borrowing on commercial terms. The implications of such a trend in the magnitude of foreign

indebtedness is self-evident; including an excessive use of short-term credits leading to sharp increases in total debt-service over a relatively short period of time partly due to bunching of maturities, but most importantly, leading to significant rises in the interest-charge component of debt-service; all of which aggravate debt difficulties. In addition, an evaluation of loan terms has revealed that borrowing from private sources has contained harder terms relative to that from official donors. Finally, there is a general tendency for loan terms from both sources to harden over time.

Resort to more borrowing from private creditors should be seen against the growing need by developing countries for more foreign resources than that normally provided through official channels. That stems from the desire of these countries both to grow rapidly and to alleviate poverty which are inextricably linked; causing many critical economic problems, highlighted by frequent liquidity and foreign exchange crises. Most relevant in this connection is that excessive borrowing on commercial terms has, in certain cases, been the main factor behind rapid accumulation of debts and eventually led to grave debt-servicing difficulties.

The apparent fact that insufficient volumes of external resources on appropriate terms were extended to developing countries, judging by estimates of their need for the support of such resources, caused great concern among academics and policy-makers alike. It also resulted in critical assessments of the present international economic order from the standpoint of less-developed countries. As a result of these assessments,

it is now widely believed that the establishment of a new system to regulate international economic relations should result in immediate benefits to developing countries; notwithstanding its considerable long-term advantages to both sides. Although no conclusive agreement has been reached to restructure the system as a whole, various palliatives have already been adopted by most official donors in the field of aid which should reduce the adverse effects of debt difficulties of affected countries.

The above measures include the establishment of special funds designed to defuse the economic crises of those countries badly affected by the sharp rise in the cost of their imports. In addition, certain industrialized countries have agreed to provide a generalized debt-relief for the least-developed countries by cancellation of past debts and have also pledged themselves to extend their future bi-lateral aid to these countries in grant rather than loan form so as to avoid debt problems. Particularly significant in the attempts to avert debt crises and to promote development in indebted countries is that most of the latter have reached bi-lateral agreements with their major donors to ease the growing pressure on their economies arising from unmanageable foreign indebtedness; including debt rescheduling, refinancing and partial cancellation.

The above measures should ease immediate debt difficulties, but do not necessarily prevent the emergence of similar crises in the future. A central element in avoiding future debt difficulties is the ability of affected countries to improve their inadequate economic performance to which, in my opinion, a larger part of the present

problem is owed. They should activate their economies by implementing effective measures designed to promote exports, to overcome development constraints and to eliminate resource waste. Such policies should add to their debt-servicing capacity potential.

The above arguments are presented in the broader perspective of developing countries as a whole in connection with the origins and implications of growing international indebtedness. The study then turns to a detailed examination of the situation in the Sudan, making use for this purpose of published and unpublished data.

Our analysis makes it clear that the success of the present development programme of the Sudan largely depends on the ability of the government to mobilize foreign financial and technical support. With the pattern of the present development strategy prevailing since the early sixties, debt difficulties has become more critical during the late seventies. It has been shown that the country's outstanding debt includes a high and an increasing proportion of cash loans and oil-facilities to mitigate the adverse effects of the mounting deficits on the current account of the balance of payments caused by the widening trade gap and the increasing debt-service burden. The period 1974-77 witnessed the highest-ever rate of debt accumulation in the Sudan; including an increasing proportion of loans from private creditors with obvious implications on the magnitude of debt-service obligations. However, the bulk of Sudan's public debt is owed to official donors. On the other hand, about two-thirds of the present level of outstanding debt has resulted from short-and medium-term

loans, with the size of the former sharply rising over the years.

In view of the above characteristics of its foreign indebtedness, the Sudan is particularly prone to debt difficulties, which are aggravated by the inadequate growth performance of the economy.

The progress of the development programme is severely limited by the inability of the government to provide essential investment requirements such as adequate facilities and sufficient construction materials. In addition, the performance of the export sector has fallen well below estimates because of the limited success of the attempts to increase the volume and to alter the structure of exports. Apart from that, the size of the import bill has considerably increased, primarily to satisfy the growing need for capital goods, construction equipment and spare-parts.

In an attempt to overcome the above difficulties, large proportions of the public sector investment programme are directed to develop the necessary infra-structural base of the economy, and more than one-quarter of outstanding debt derives from loans directed to achieve that objective. The development programme also involves large-scale agricultural schemes linked with agro-based industries. Although such projects are important in the attempts to alleviate the various constraints to progress, to diversify exports and to reduce domestically-substitutable imports, they have little direct or immediate impact on the ability of the Sudan to improve its present debt-servicing capacity.

That the composition of foreign borrowing and its ultimate use have led to mounting debt difficulties in the Sudan is evident from the sharp rise in the magnitude of the various financial ratio indicators in this context; such as debt-service and debt-service/import ratios. Furthermore, the country's foreign reserves stand at very low levels. The upshot is that the Sudan has emerged as one of the few developing countries facing critical debt difficulties, which result in considerable frustration of its development programme.

Faced with mounting economic problems and debt difficulties, the Sudanese authorities have acted in two directions:- (i) They sought considerable debt-relief from the major donors; including the developed market economies, the Arab countries and the private donors. (ii) They acted to revise the development targets in an attempt to vitalize the economy and more importantly to avoid similar debt crises in the future.

(i) The culmination of debt difficulties during 1978-79 led to a major debt-relief operation by the Paris Club members which involved rescheduling and cancellation of parts of debt arrears. This was to be followed by a similar approach with respect to debts arising from loans owed to private creditors. Before that, there had been various attempts to reduce the severity of the country's debt problem, primarily by refinancing methods. Though it provides immediate debt-relief, the latter method can aggravate future debt difficulties. In addition to the above measures, Sudan's debt position was partly eased by the willingness of certain industrial countries to write off debts owed to

least-developed countries as a group, in which of course the Sudan is included. Most important in connection to these measures is that they should not affect the inflow of foreign resources into the country.

(ii) The debt problem, highlighted by critical foreign exchange shortages, has had an adverse impact on the development programme, leading to intensive revision of the targets set in the Six-Year Plan for the period 1977/78 to 1982/83. The development programme has been slimmed down considerably, with great emphasis on completing unfinished projects, and on investment which make a direct contribution to exports, as well as on more capital investment to be channelled into infra-structural facilities including the transport sector. Such measures should help to break the present stagnation of the export sector, and in providing more development opportunities. They should also reduce expenditure on imported capital goods, further easing balance of payments difficulties. But their ultimate impact on the economy could be less significant than is hoped, unless they are accompanied by other economic measures such as reductions of public expenditure, re-assessment of present policies in relation to foreign borrowing and ensuring the effective use of resources.

The above measures should ease the present debt problem and the government hopes that more foreign resources on favourable terms will be available to the Sudan to finance development. But the ultimate impact on the country's debt-servicing capacity largely depends on the success of the present attempts to diversify and to increase exports and to industrialize on a viable basis. Unless that takes place, the Sudan will face more critical debt difficulties in the near future than ever before.

APPENDIX 1

Land Use in the Sudan ('000 Hectares)

Particulars	1961-65	1966	1970	1975
Total Area	250581*			
Land Area	237600*			
Arable & Permanent Crops	6180	6250	6365	7495
Arable Land	6154	6220	6330	7450
Permanent Crops	26	30	35	45
Permanent Pasture	24000*			
Forest & Wood	91500*			
Other Land	115920	115850	115735	114605

Source: FAO Production Year Book 1976, Vol. 30, p.47.

* Fixed areas

N.B.
1 Hectare = 2.47106 Acres
1 Feddan = 1.038 Acres

(Feddan is often used in the Sudan).

APPENDIX 2

The following method is used for fitting a straight line trend line by the method of least squares:

We calculate the values of the parameters 'a' and 'b' from the following relationship:

$$a = \frac{Y}{n}$$

$$b = \frac{xy}{x^2}$$

$$Y_c = a + bx$$

Where: a is the intercept

b is the estimated annual change of the given variable

y is the given value of the variable

x is the length of time-series

Y_c is the computed trend line

n is the number of observations

In table 5.13, there are 8 observations and hence x values will be -7, -5 ..... 5, 7. For expenditures,

$a = 216.2$

$b = 15.4$

so $Y_c = 216.2 + 15.4\ (x)$

To fit the trend line, we take any two values of x. In this case:

$$Y_{c\ 1970/71} = 216.2 + 15.4\ (-5) = \underline{139.2}$$

$$Y_{c\ 1975/76} = 216.2 + 15.4\ (5) = \underline{293.3}$$

The same applies for revenue:-

$a = 234.0$

$b = 17.4$

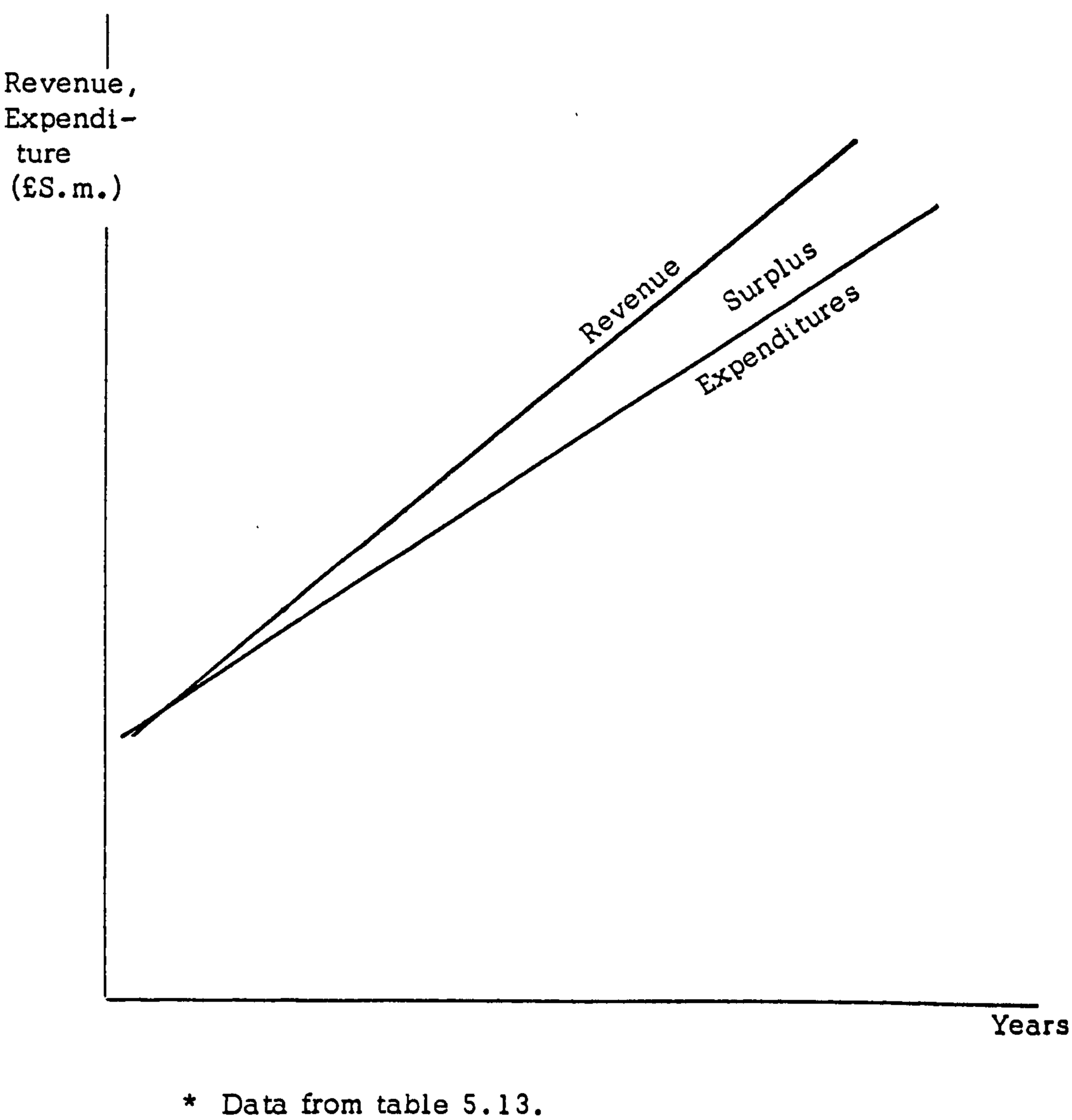
$Y_c = 234.0 + 17.4\ (x)$

$$Y_{c\ 1970/71} = 234.0 + 17.4\ (-5) = \underline{147.0}$$

$$Y_{c\ 1975/76} = 234.0 + 17.4\ (5) = \underline{321}$$

Then the trend line is fitted as follows:

The Trend Line of Public Revenue and Expenditures in the Sudan, 1969/70-1976/77*



* Data from table 5.13.

APPENDIX 3

Functional Classification of the Central Government Expenditures, 1969/70-1976/77 (£S.m.)

Years	Economic Services	Social Services	Loan Repayments	Defence & Security	Local Government	Miscellaneous	Total
1969/70	18.3	19.8	9.2	37.1	20.1	39.4	143.9
1970/71	18.5	20.1	11.8	46.2	17.7	32.1	146.4
1971/72	21.1	21.7	14.7	47.6	18.6	29.6	153.3
1972/73	23.6	23.4	16.1	45.7	15.6	47.5	171.9
1973/74	23.4	16.8	19.0	41.2	37.9	51.3	189.6
1974/75	28.4	18.7	27.6	41.9	48.1	99.3	264.0
1975/76	34.9	23.9	37.5	45.5	59.8	101.4	303.2
1976/77	34.9	25.7	37.0	67.2	73.2	113.2	351.2

Source: The Economic Survey, 1977/78, Ministry of Finance and National Economy, Khartoum, Appendix 2-2.

APPENDIX 4

Disbursement of Development Funds by Source, 1966-77 (£S.m.)

Years	International Multilateral	Developed Market Economies	Arab Funds	Centrally Planned Economies	Regional Banks	Total
1966	4.1	2.4	5.8	0.9	-	13.2
1967	3.3	4.8	1.3	0.3	-	9.7
1968	1.8	4.9	1.0	0.4	-	8.1
1969	2.8	0.1	1.7	0.4	-	5.0
1970	4.1	1.0	1.0	3.1	-	9.2
1971	2.7	0.2	0.8	1.5	-	5.2
1972	1.6	6.2	4.4	1.2	-	13.4
1973	1.4	2.9	5.8	1.2	-	11.3
1974	1.0	13.4	13.4	1.2	0.2	29.2
1975	3.4	12.8	7.9	1.1	4.5	34.7
1976	3.3	2.3	20.0	0.5	1.0	27.1
1977	3.0	-	6.1	-	0.4	9.5
Total	37.5	51.0	69.2	11.8	6.1	175.6

Source: Bank of Sudan Annual Reports, 1966-77.

APPENDIX 5

Disbursement of Development Aid by Beneficiary Activities, 1966-77,
(Excluding Centrally Planned Economies) (£S.m.)

Years	Agriculture	Industry	Transport...	Electricity...	Services	Purchases of Equipment	Total
1966	2.5	0.7	2.7	-	4.9	1.5	12.3
1967	3.5	0.5	2.1	-	-	3.3	9.4
1968	1.3	-	1.7	0.5	-	4.2	7.7
1969	1.1	-	1.3	2.2	-	-	4.6
1970	1.8	-	1.1	3.1	-	0.1	6.1
1971	0.4	-	0.9	2.2	0.1	0.1	3.7
1972	1.6	-	0.5	4.0	0.1	6.0	12.2
1973	4.7	2.0	0.2	0.4	0.3	2.5	10.1
1974	3.6	1.2	17.7	0.4	0.4	4.7	28.0
1975	9.4	1.7	15.4	0.4	0.1	6.6	33.6
1976	10.8	1.1	12.1	0.3	0.1	2.2	26.6
1977	6.7	-	2.4	-	0.4	-	9.5
Total	47.4	7.2	58.1	13.5	6.4	31.2	163.8

Source: Bank of Sudan Annual Reports, 1966-77.

APPENDIX 6

The Estimated Values of the Coefficient 'c' in the Behavioural Equation $S = a + bY + cF + dE$ for the 17 Developing Countries

Countries	Periods	'c' Values	t-Ratio	R^2
Burma	1953-62	-0.484	-2.5	0.964
Columbia	1953-66	-0.069	-0.18	0.972
Costa Rica	1957-65	-0.584	-1.25	0.943
Ghana	1955-65	-0.765	-2.52	0.798
Guiana	1954-65	-0.355	-2.83	0.970
Honduras	1953-66	-0.880	-2.40	0.974
India	1950-65	-0.270	-5.91	0.999
Israel	1953-64	-0.886	-10.40	0.999
Jordan	1959-66	-0.955	-2.63	0.965
Malta	1955-66	-0.274	-4.41	0.949
Mexico	1953-66	-0.055	-0.25	0.994
Philippines	1953-62	-0.209	-1.37	0.994
Portugal	1954-64	-0.758	-3.20	0.995
Puerto Rico	1953-66	-0.537	-12.51	0.999
South Korea	1953-66	-0.817	-2.13	0.904
Taiwan	1953-65	-0.371	-2.95	0.997
Uruguay	1955-64	-0.043	-0.25	0.917

Source: Weisskopf, T.E. (1972): The Impact of Foreign Capital Inflow on Domestic Savings in Underdeveloped Countries, JIE, Vol. 2, No. 1, table 2, p.36.

APPENDIX 7

A Source-Break of Net Resource Transfers to Developing Countries for the Years: 1970, 1973-76 (Million U.S.$)

Categories of Countries	1970	1973	1974	1975	1976
Developing Countries(94)*	7125	14224	16594	26245	29118
OB[1]	4327	7134	8700	13309	11411
OM[2]	1113	2072	3047	4464	4217
PS[3]	1685	5018	4847	8472	13560
801 U.S.$ and Above(27)	3013	6601	4628	7437	12099
OB	960	1952	390	2110	1510
OM	391	597	864	911	607
PS	1662	4052	2374	4416	9982
161-800 U.S.$ (48)	2584	4790	8102	13525	12597
OB	2077	3717	4718	7673	7107
OM	479	800	1189	1986	2149
PS	28	277	2195	3866	3341
160 U.S.$ and Below(19)	1528	2354	3866	5279	4494
OB	1289	1470	2593	3524	2793
OM	245	676	992	1567	1462
PS	-6	208	281	188	239
Least Developed Countries (25)	606	1608	2568	3494	3088
OB	420	1129	1744	2495	2131
OM	170	386	620	912	878
PS	16	93	204	87	79

P.T.O.

Contd.

Most Seriously Affected LDCs(39)	2040	3686	6234	10259	8648
OB	1600	2720	4276	7602	5998
OM	429	989	1431	2350	2166
PS	11	-23	527	307	484
Oil-Exporting Countries (11)	1738	3349	584	3109	4071
OB	906	1546	608	904	422
OM	75	223	281	405	474
PS	757	1580	-305	1800	3175

Source: See table 11.7.

(1) OB = Official Bilateral

(2) OM = Official Multilateral

(3) PS = Private Sources

* Figures between brackets refer to the number of countries included.

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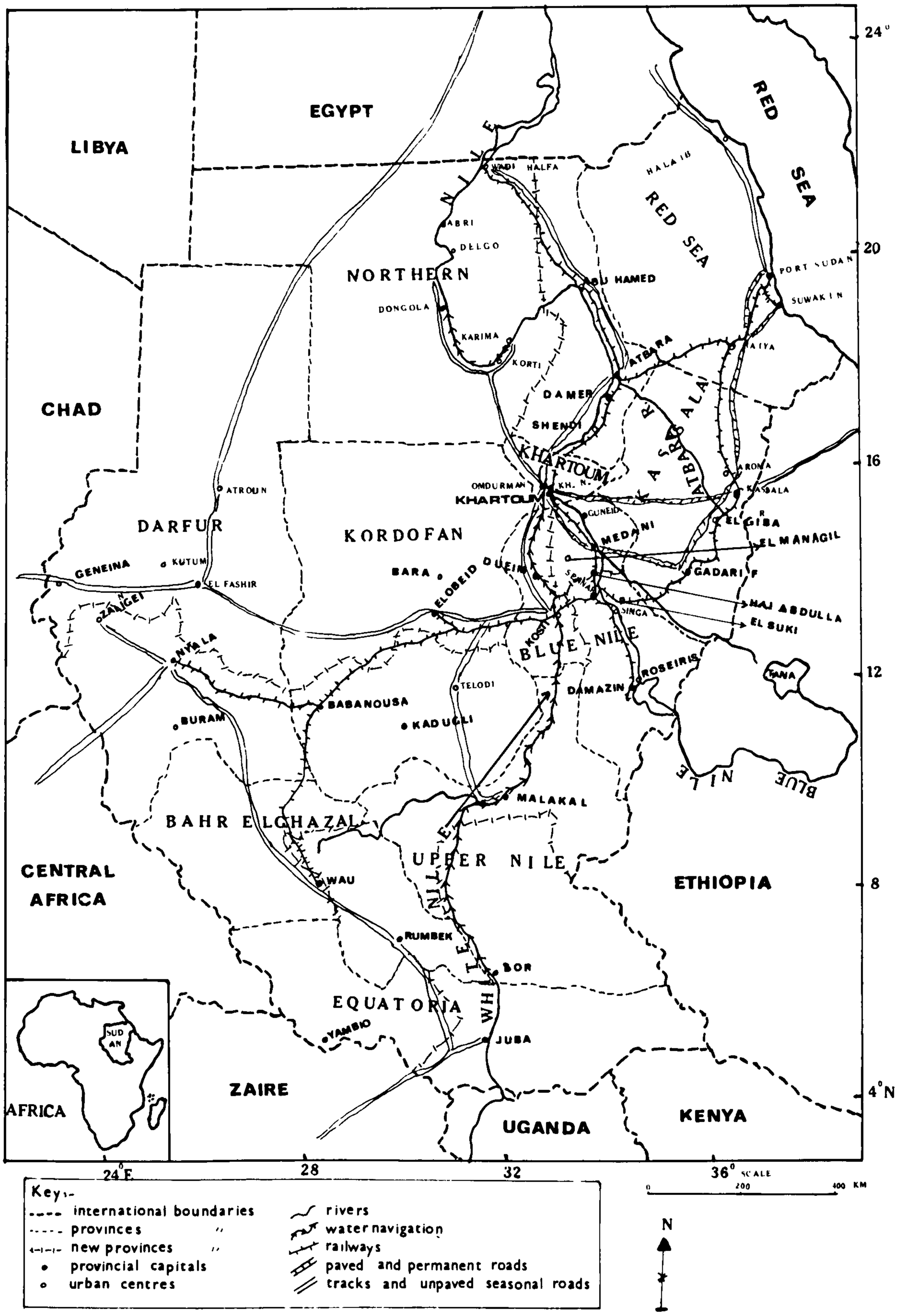
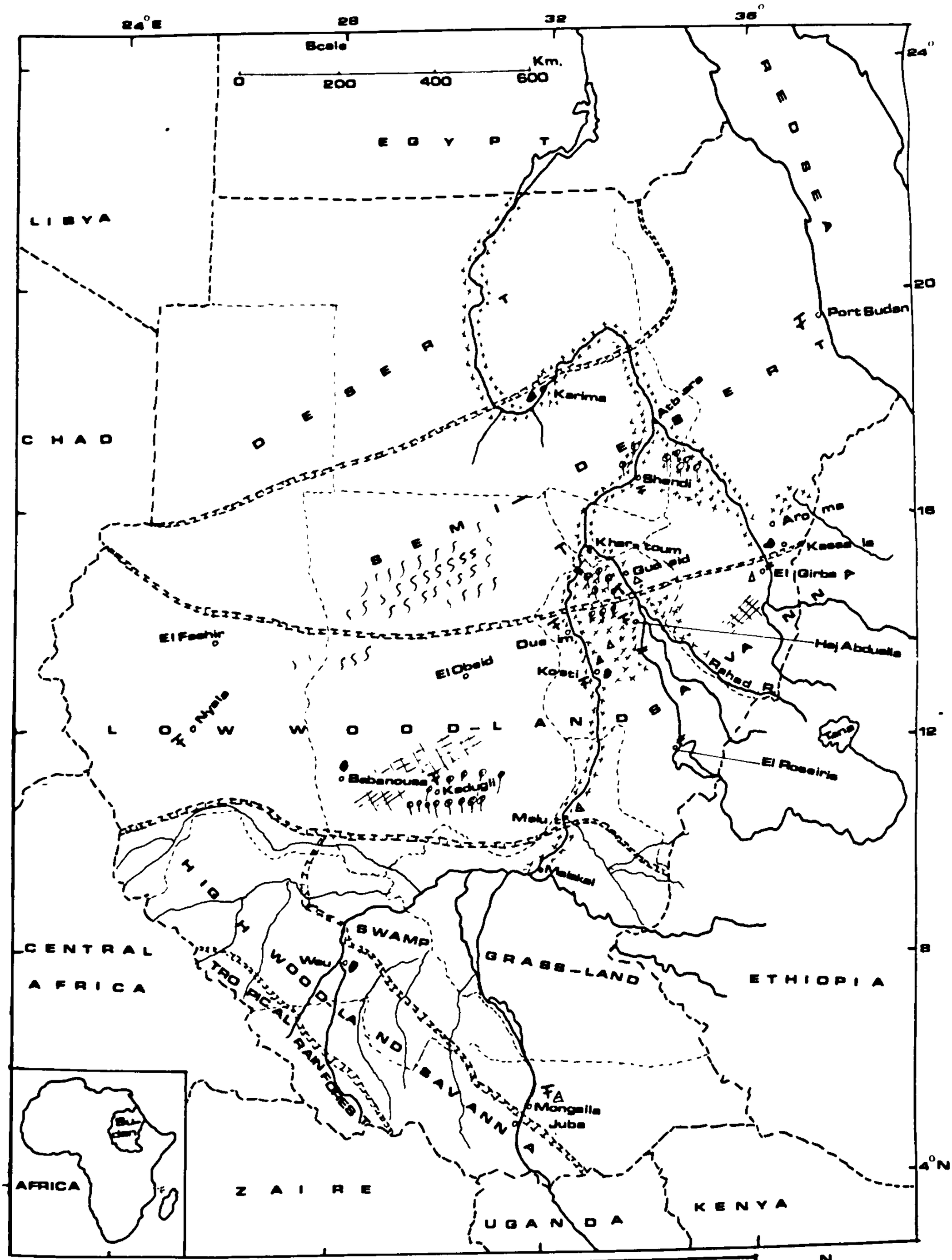
MAP (1): SUDAN — URBAN CENTRES & TRANSPORT NET-WORK



Key:-

- international boundaries
- provinces ,,
- new provinces ,,
- provincial capitals
- urban centres
- rivers
- water navigation
- railways
- paved and permanent roads
- tracks and unpaved seasonal roads

MAP (2): SUDAN — MAIN CASH CROPS & AGRO-ALLIED INDUSTRIES



Key:-

- Major Vegetation Zones.
- Irrigated Land.
- Cotton Production.
- Sesame " .
- Gum Arabic " .
- Dams.
- Food-processing Industries.
- Textile Industry.
- Planned Textile Industry.
- Sugar Industry.
- Planned Sugar Industry.
- + For Other Symbols: see Map (1).